The life-cycle hypothesis, financial planning and the household demand for financial assets : an analysis of the Malaysian experience

Shafii, Zurina

The Life-Cycle Hypothesis, Financial Planning and the Household Demand for Financial Assets; an Analysis of the Malaysian Experience

By

Zurina Shafii

Thesis Submitted in Fulfilment of the Requirements
For the Degree of
Doctor of Philosophy at Durham University

The School of Government and International Affairs
Institute of Middle Eastern and Islamic Studies
University of Durham, UK

March 2007

ABSTRACT

The life-cycle hypothesis proposed by Modigliani and Brumberg (1954) suggests that the level of demand for financial assets is driven by the age of householders. This research examined the life-cycle effect on the level of demand savings accounts, unit trusts and shares in Malaysia. Variables such as income, wealth and a series of demographic and socio-demographic variables were also introduced in the regression models estimated. Householders' exposure to financial planning and their propensity to plan as well as the effect of the involvement of financial planners in household portfolio allocation at the level of householders' demand for financial assets are also included. The introduction to the study on households' preference for Islamic and conventional financial assets as well as their level of Syariah made our research is a novel examination of financial asset demand in this respect.

The results of this study indicate that all economic variables are significant in determining the level of demand for financial assets. Gender is the only demographic variable that is significant in the demand for all financial assets except in the regression for the demand of unit trusts. Levels of education are irrelevant for the demand for financial assets except partly in the demand for shares. Sector of employment to which householders belong serves partly to explain variations in the demand for unit trusts and saving accounts. Households' preferences to hold conventional or Islamic financial assets prevail only in the demand for saving accounts. Syariah literacy only affects the demand for saving accounts but not for the other two types of financial assets.

To further analyse the householders' portfolio selection, data from financial planners are also collected using questionnaire a method of data collection. Three of the seven planners stated that majority of their clients are have medium skills in evaluating their financial goals. Demographically, majority of financial planners reported that the age of their typical clients is between 41-50 years old with the remaining two stated that the majority of their clients are of younger age being 31 to 40 years old. Two of the planners stated that their clients' financial planning skills are poor while the remaining financial planners stated that their clients are able to evaluate their financial goals in accordance with their current financial position. In relation to Islamic financial planning, 3 out of 7 of them reported that the proportion of their clients who are engaged in Islamic financial planning totals more than 50% of client-base.

DEDICATION

In memory of my father,

Shafii Omar

31st July 1928-19th June 2005

I am eternally grateful for his love, comfort and wisdom.

ACKNOWLEDGEMENTS

I wish to express my gratitude to those who have inspired and supported me during the course of this thesis preparation.

I would like to thank first and foremost my supervisor, Professor Rodney Wilson, for his guidance and assistance in writing this thesis. His valuable advice, encouragement and understanding made the whole process much easier. In addition I wish to thank Professor Muhammad bin Muda for his support and opinions on the thesis. My gratitude also extended to Dr. Kamil Idrus, an academician in Universiti Utara Malaysia for his guidance on statistical matters. My study would not have been possible without the financial support/scholarship I received from the Universiti Sains Islam Malaysia (USIM) and Jabatan Perkhidmatan Awam (JPA). I would like to thank these organisations for their support.

I am grateful to the respondents for their cooperation in answering the questionnaire and interviews for this study. I regret that I can not mention everyone here. However, special appreciation goes to the customer service manager of PNB Jalan Tun Razak, the manager of Bank Islam Jalan Tun Razak, the manager of customer service of Tabung Haji, staffs of APEX securities, staffs of KN Kenanga for their assistance to let me distribute questionnaires to their clients. Thank you to Hajjah Rohani Datuk Shahir for her intellectual input in Islamic financial planning and her contacts on several financial planners whom I interviewed.

My special thanks to Mr David Middleton for proofreading my thesis. His sense of humour made the process of final editing bearable. I wish to acknowledge the generous and helpful teaching and administrating staffs in the School of Government and International Affairs, Durham University, staff of the Education Library at the University of Leicester and the staff of Markfield Institute of Higher Education (MIHE).

My greatest thanks are reserved for my husband, Abdullah Jones and to my mother, Romlah and my sisters and brothers. They have given me help, patience, love and encouragement throughout my entire academic venture. Their support has meant the world to me. For these and many other reasons I am eternally grateful. For Hylmun Izhar from the University of Durham and Ms. Azlina Aziz from the Economic Department, the University of Leicester who provided insights and comments and help with the statistical matters, I am thankful. Lucy, Frances, Jean, Cornelia, George and Reza provided me with great help with my English and a joyful experience in the UK. Dr. Mohamed, Dr. Amal Lamlilass, Mahammed, Ayman and the most adorable girl, Lina taught me on the meaning of hard work and I am greatly indebted to them. Thanks also to my friends in Durham, Ms. Elena, Ms. Farah Madehah, Ms. Wan Kamariah (Zulkifli), Aishah (Dr. Aminiddin), Ms. Noraini Ibrahim, Ms. Wati (Dr. Lukman) and Ms. Zuraidah (Talib) for being such reliable friends to me. Ms. Saadiah Maalip and her husband, Mr. Abid Kamal gave me so much support that I cannot thank both of them enough. Finally I would also like to thank all my dear friends and colleagues wherever they are, especially to Norain, Emilia, Fairuz, Shima, Sherina, Ms. Nadia and Ms. Norazam, whose making life during my study not just bearable but enjoyable.

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GLOSSARY

Akad : Agreement between parties involved in business transactions. Without it, transactions cannot be regarded as valid in the eyes of Islamic law.

Takaful : Islamic solution to risk management which means helping each other. Participants agree in a contract to contribute a sum of money to be put in a fund that can be used to pay other participants in need. The fund can be managed by the way of profit-sharing among participants and the manager of the fund or simply by the manager being an agent to the participants to whom the participants pay fees.

Syariah : Literally, the Syariah means the path to water- the source of life, the clear path to be followed and the path which the believer has to tread in order to obtain guidance in this world and the deliverance in the next. Technically, it means a set of norms, values and laws that govern Muslims' lives.

Bay' bithaman 'ajil : This contract refers to the sale of goods on a deferred payment basis. Equipment or goods requested by the clients are bought by the bank which subsequently sells the goods to the client at an agreed price which includes the bank's mark-up (profit). The client may be allowed to settle the payment by instalments within a pre-agreed period, or in a lump sum. It is similar to a *murabahah* contract, but with payment on a deferred basis.

Bay' al-Inah : Sell and buy back arrangement. The financier sells an asset to the customer on a deferred payment and then the financier immediately repurchases the asset for cash at a discount.

Istisna' : A contract for manufacturing goods. Payment received by the seller in advance for the manufactured goods to be delivered in the future. The quantity and the quality of the goods are ascertained in advance.

Mudharabah	: Refers to an agreement made between a capital provider and another party (entrepreneur), to enable the entrepreneur to carry out business projects, based on a profit-sharing basis of a pre-agreed ratio. In the case of a loss, it will be borne by the provider of the funds.
Maisir	: Gambling. A business transaction that involves elements of gambling is prohibited by *Syariah*.
Tabarru'	: By definition can be referred to as a contribution, donation or offering. The instrument is used in takaful institutions where a contribution is collected from the participants to be managed by the funds.
Qada' and *Qadar*	: Allah's will of occurrences; bad or good that shall happen to all living creatures. It is one of the six articles of faith for a Muslim.
Sukuk	: A certificate of ownership of right of assets. It can be issued under many instruments such as leasing and diminishing musyarakah. By holding the certificate, the owner is entitled to the rights of owning the underlying assets such as on money receivables upon the usage of the assets. Sukuk can be traded in the secondary markets as it has an intrinsic market value that can be passed from one party to another.
Riba'	: Literally means an increase or addition. Technically it denotes any increase or advantage obtained and accrued by the lender in a loan transaction without giving an equivalent counter-value or recompense in return to the borrower. In a commodity exchange, it denotes any disparity in the quantity or time of delivery.
Halal	: Permissible according to *Syariah*
Haram	: Prohibitions according to *Syariah*
Gharar	: The root word of gharar denotes deception or ambiguity. *Bay' al-gharar* is an exchange in which there is an element of deception either through ignorance about the goods, the price or through faulty conditions of the goods.
Umum balwa	: Activities that involve the general public

Maslahah	: Literally means benefit or interest. In the context of *Syariah*, it can be referred to as public interests. One of Syariah applications of this concept is the adoption of "maslahah mursalah" which means unrestricted public interest on any fatwa or ruling passed by Islamic jurists.
Musyarakah	: Refers to a partnership or joint venture for a specific business. The distribution of profits will be apportioned according to an agreed ratio. In the event of losses, both parties will share the losses on the basis of their equity participation.

ABBREVIATIONS

Abbreviations	**Meaning**
AICPA	American Institute of Certified Public Accountants
ASM	Amanah Saham MARA
BIMB	Bank Islam Malaysia Berhad
BNM	Bank Negara Malaysia Berhad
CCCS	Consumer Credit Counselling Service
CMP	Capital Market Plan
CPA	Certified Public Accountants
EFP	Exchange Futures for Physical
EPF	Employee Provident Fund
ETF	Exchange Traded Fund
FAST	Fully Automated System for Tendering
FPAM	Financial Planning Association of Malaysia
FPSB	Financial Planning Standard Board
GDP	Gross Domestic Product
GLS	Generalised Least Squares
GNI	Gross National Income
IFI	Islamic Financial Institution
IIMM	Islamic Interbank Money Market
IRA	Individual Retirement Account
ISO	International Standardisation of Organisation
KLIBOR	Kuala Lumpur InterBank Offer Rate
KLSE	Kuala Lumpur Stock Exchange
MARC	Malaysian Rating Corporation Berhad
MPT	Modern Portfolio Theory
MTN	Medium Term Notes

MYR	Malaysian Ringgit (Currency)
NAPFA	National Association of Personal Financial Advisors
NAV	Net Asset Value
NCD	Negotiable Certificate of Deposits
NCEE	National Council on Economic Education
NOW (account)	Negotiable Order of Withdrawal (account)
OECD	Organisation of Economic Co-operation and Development
OLS	Ordinary Least Squares
PFP	Personal Financial Planning
RAM	Rating Agency Malaysia Berhad
RENTAS	Real-Time Gross Settlement System
REIT	Real Estate Investment Trust
SC	Securities Commission
SAC	Syariah Advisory Council
SIPP	Survey of Income and Participation
SOP	Standard of Practice
SPSS	Software Packages for Social Sciences
TSR	Transferable Subscription Rights
UNESCO	United Nations Educational, Scientific and Cultural Organisation

CHAPTER 1

BACKGROUND OF THE STUDY

1.1 Introduction

The life-cycle hypothesis developed by Modigliani and Brumberg (1954) states that the amount of wealth owned by householders is significantly determined by their age. Householders' asset portfolio accumulation begins with insignificant assets when they are young. Wealth and savings will then increase up to the point of the retirement age and decrease substantially at retirement, posing an inverse U-shaped pattern of wealth accumulation pattern.

In line with the hypothesis, Bodie *et al.* (1992) reported that young householders are more flexible in term of their labour supply making them more susceptible to save less or even to borrow money. Information hypothesis proposed by King and Leape (1987) supports the fact that the demand for financial assets is maximised during the middle-age stage. As information needs time to be acquired and digested, middle-aged households are more confident to invest more than their younger counterparts. At retirement age, householders will have to consume their savings due to the significant reduction in their labour income. In order to have enough savings for the retirement purpose, they have to maximise savings during earlier periods of their lives. The pattern of humped-shape wealth accumulation also accommodates the prediction of a permanent income hypothesis which is sometimes called the habit formation hypothesis; Duesenberry (1949).

The prediction of the traditional model states that the total wealth of households peaks at middle age and start to decrease in older age. Poterba and Samwick (1997) found that the reverse pattern applies to the demand for financial assets. Since their

studies took into account both financial and non-financial assets, the difference in the pattern of demand for both types of assets can be examined. The holding of financial assets is higher for younger householders, reduces during the middle age and increasing again at older age. When they are younger, householders hold more of financial assets when real assets are too costly to be considered. Subsequently, when householders have enough funds to purchase their houses, they will tend to hold fewer financial assets. On the other hand, older householders tend to hold more financial assets since these types of assets are able to meet their objectives of liquidity during their later years. They particularly need liquid assets to replace their labour income flow to spend on their current consumption as well as to pay for health related expenses which may be significant in their costs.

In contrast, Jagannathan and Kocherlakota (1996) state that the age factor is not the main factor determining the level of demand for financial assets. Investment decisions are very much specific to an individual investor's risk and return consideration as well their background risk such as the correlation of an individual's income to the return on his/her investment.

The economic background of householders, especially their level of net wealth, also significantly affects the amount of financial assets they own. Two other measures of financial ability are income and wealth. Research examining the effect of these economic variables on the demand for financial assets has been done by, among others, King and Leape (1984), Wolff (1979), Hochguertel *et al.* (1997) and Modigliani and Brumberg (1954).

The marginal propensity to save of householders is not only affected by objective factors but also by subjective factors (Keynes; 1936). As marginal propensities to save directly affect the demand for financial assets, Tin (2000) uses Keynes' insights to examine whether changes in socio-economic conditions have a significant impact on the demand for financial assets. His study includes factors such as age, number of

children, level of education, marital status, gender, and race as demographic variables tested as factors to influence the level of asset demand.

In relation to levels of education, Hochguertel *et al.* (1997) found that higher educated householders invest more in stocks than less educated people. This might be due to the fact that they are able to tolerate a higher level of risk compared to their less educated fellows owing to higher income and the stable nature of their income. Again, on education, some authors suggest that educated householders tend to hold more risky assets due to the higher level of information they possess. King and Leape (1987) suggest that educated people have better information about various investment opportunities so that they can manage their investment ventures better.

Ameriks *et al.* (2002), in their study reveal a strong relationship between financial planning and wealth accumulation. Their survey data suggest that individuals with a low propensity to plan are unable to monitor their spending and are unlikely to be able to accumulate wealth. In order to devise a financial plan, householders need to have an adequate level of financial literacy. Regular monitoring of financial activities and a reasonable level of financial exposure are one of many aspects to be observed by householders during the process of wealth accumulation they embark.

This research will explain the variation in the demand for three types of financial assets, namely savings accounts, unit trusts and shares using micro-data obtained from participating householders. The effect of income, wealth and net wealth will first be tested in order to find the best regression[1] modelling for the demand for each type of financial assets. Upon the establishment of the best regression for each type, the existence of a life-cycle effect will be examined. In addition, the effect of sets of demographic variables will also be tested following the approach of Tin (2000) on propensities to save and the demand for financial assets. Furthermore, the effect of

[1] The best regression in this respect is referred to the regression model that has highest value of R-Squared.

the financial planners' involvement will also be included following the study of Ioannide (1992). In addition, several construct variables measuring householders' exposure to personal financial management and the propensity to plan will be devised. This is to evaluate the relationship between householders' levels of financial exposure and their propensity to plan with the levels of their demand for financial assets.

This research will extend research in this area which was previously considered on the level of demand for conventional[2] financial assets. With different risk and return characteristics characterised by the Islamic financial asset (financial assets issued under the provision of Islamic *Syariah* law), studies taking into account both types of financial assets are vital. Using a dummy variable to distinguish the effect of a householder's preference for Islamic or conventional financial assets, the research will test whether such a preference significantly affects the level of demand for financial assets under study. This research will be among the first research taking into account the life-cycle hypothesis as a factor affecting the level of demand for Islamic financial assets as Islamic banks were introduced relatively recent in Malaysia.[3] Householders' level of *Syariah-compliancy* literacy will also be examined in order to complete our analysis on this matter. By doing so, our study is a unique examination which takes into account Islamic financial asset holdings where only conventional financial asset demand has been previously examined.

Micro-data[4] analysis will be used in this research as this method of data collection helps eliminate identification problems which usually experienced by researchers when using values of macro data in specific estimations they are working on. If macro-data sources are to be considered, problems of identifying which aggregate

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[2] Financial assets that do not comply with the *Syariah* law
[3] All Islamic banks are governed by the Islamic Banking Act 1983 (IBA) and guided by guidelines issued by BNM.
[4] Micro data analysis involves data collected from the primary source. In our case, micro data on the demand for financial assets will be collected from households that own such assets.

data are best to suite householders' demand for financial assets may occur. Identification of such data is important in order to reflect the correct data to be assigned to income, wealth, net wealth and the amount of financial assets holding analysed. To avoid such complication, this study collected its own primary data from the main sources. This approach, more importantly, will lend originality to the research in the area and contribute massively to further research.

1.2 Research Aims

The aim of the research is two-fold. The first aim is to identify and analyse sets of factors driving the variation of demand for financial assets. Identification of relevant factors affecting the level of demand for financial assets, thus, is the main aim of this study. This research will further analyse how identified factors affect the level of demand for financial assets. In other words, the degree of effect of individual factors can be determined by observing the value of the coefficients of the variables in the regression model.

The second aim of the research is to examine further the issue of financial planning and financial knowledge in Malaysian householders. As established by Ameriks *et al.* (2002), individuals who plan their finances are more likely to have more savings and wealth compared to individuals who do not. Their findings motivate us to concentrate more on the characteristics of individuals who plan extensively i.e. by hiring the service of financial planners. By conducting interview in assembling primary data with financial planners, other subjects will also be covered. Of concern to this research will be information on the scope and practices of financial planners, such as their qualifications, the range of services they offer and their fees. Particular emphasis will be given to the level of financial knowledge of individuals engaged in financial planning. Financial planners will be asked to rate their clients' level of financial

literacy such as their knowledge on financial products, risk management planning, tax and retirement planning. The information obtained can then be used to be compared to data obtained from householders on their level of financial literacy.

1.3 Research Objectives

a) To investigate the effect of economic factors such as income, wealth and net wealth on the demand for financial assets;
b) To ascertain whether a life-cycle effect exists for every types of financial assets;
c) To investigate whether demographic variables have a significant effect on the level of demand for financial assets;
d) To ascertain whether the preference for conventional assets and Islamic financial assets and their level of *Syariah* literacy significantly affects householders demands for financial assets;
e) To ascertain whether the difference in risk tolerance levels significantly affect the demand for financial asset;
f) To investigate whether householders' engagement or abstention significantly affects the demand for financial assets;
g) To study the effect of financial exposure experienced by householders on the level of demand for financial assets;
h) To study the effect of householders' propensity to plan on the level of demand for financial assets; and
i) To examine various issues related to the practice of financial planning in Malaysia by conducting semi-structured interviews with certified financial planners.

1.4 Research Questions

In line with the first research aim, the following questions were formulated:

(1) What are the factors that affect the level of demand for financial assets?

(2) How do the following factors affect the level of demand for financial assets?

a) Income
b) Wealth
c) Net wealth
d) Age of respondents
e) Gender of respondents
f) Marital status of respondents
g) Race of respondents
h) The level of education of respondents
i) Job sector of respondents
j) Race of respondents
k) Risk tolerance attitude (bonds or stock preference)
l) Certified financial planner engagement
m) Preference to hold Islamic financial assets and conventional financial assets
n) *Syariah* literacy
o) Financial exposure
p) Propensity to plan (regularity of monitoring of personal financial matters)

As for the second aim of the research, semi-structured interviews conducted with participating financial planners. Financial planners are professionals who advise their clients on how to create financial goals according to their current financial position and future expectations and subsequently give advice on financial instruments that suit their clients' goal. Data obtained from the interviews summarised in suitable forms of descriptive statistics. Among data to be collected from financial planners are the characteristics of householders who actively manage their financial portfolios via engagement with certified financial planners. Data on financial planners' clients such as their financial position and their financial planning behaviour were also collected. As financial planners are trained professionals in the area of financial assets demand and portfolio allocation they lend us good and credible data to work on with.

1.5 Scope of the Research

Any findings of this present study, however, must be observed with cautions due to limitations emanating from the research procedures used. The research relates to only the analysis of financial assets demand. Certain emphasis might be placed on the ownership of real assets such as properties (known as the substitution effect) when households allocate their portfolios, but in this research we will not be dealing with them.

The subjects of this study are respondents from a single geographic area in Kuala Lumpur, the capital city of Malaysia. Although only one geographical area had been selected, the richness and the quality of diversity of a big capital city offers a heterogeneous set of responses which includes respondents from householders who invest in different types of financial assets, i.e. saving accounts, shares and unit trusts, as well as including respondents from different economic and socio-demographic backgrounds.

Data of high quality often lends credibility to the findings of a research. Using the questionnaire as a way of data collection may be imprecise to the extent that householders may not always convey their true feelings. A low response rate is also a concern in survey research (Fowler 1984; Sekaran 2003). To mitigate the problem, we encouraged the respondents to answer the questions as accurately as they could by assuring them of total confidentiality for their answers. To increase the response rate, one of the data collection methods we adopted was to personally hand out the questionnaires at the selected research locations so that respondents would be more inclined to fill in the questionnaires.

1.6 Outline of the Thesis Contents

The remaining chapters are organised as follows:

Chapter 2 reviews the literature on the demand for financial assets. The introduction to the life-cycle hypothesis prediction to the level of demand for financial assets is provided in the chapter. Selections of important factors that drive the demand for financial assets are also recognised. Important works on the life-cycle hypothesis performed by other researchers have been reviewed in this chapter.

Chapter 3 offers an introduction to the demand for various financial assets in Malaysia. In this chapter, the review of the current state of demand and supply for demand for financial assets such as transaction accounts, certificate of deposits, saving bonds, bonds, shares, unit trusts, retirement accounts and life insurance is provided.

Chapter 4 provides a review on financial planning, financial literacy and Islamic financial planning in Malaysia. In that respect, we will write about the Financial Planning Association of Malaysia (FPAM) and its functions. A review of the frameworks and areas in which financial planning operates will also be provided. Finally the chapter will review aspects of financial literacy, financial education and *Syariah* literacy especially concerning the current development in Malaysia.

Chapter 5 consists of the research methodology including the theoretical framework, the hypothesis development and model specification for the study. The measurement, sampling and instrumentations and procedures of the study are also discussed in the chapter.

Chapter 6 presents the empirical findings and results from the multiple regression analysis. Descriptive results on important aspects of the data are provided. In addition, reliability and validity tests as well as diagnostic tests also presented in addition to the regression analysis.

Chapter 7 is an extension of Chapter 6. It discusses the multiple regression results on the factors that affect the level of demand for financial assets in Malaysia especially on the effect of age on such demand.

Chapter 8 relates directly with Chapter 4 that discusses financial planning, financial literacy and Islamic financial planning in the light of the evidence produced from the primary data analysis. The chapter mainly reports on the interviews with the financial planners.

Chapter 9 is the concluding chapter. It provides the summary of the findings of this research. In addition, how the findings from this study may contribute to the body of knowledge and other parties such as policy makers and the financial institutions that

offer financial products is discussed. Research limitations are also discussed with suggestions for better research in the area which could be conducted in the future.

CHAPTER 2

THE LIFE-CYCLE HYPOTHESIS AND DEMAND FOR FINANCIAL ASSETS: A SURVEY

2.1 Introduction

Householders save either for precautionary purposes or to prepare themselves for retirement. Precautionary savings are usually triggered by labour income uncertainty faced by householders during their working periods. Savings for retirement, on the other hand, will result in income smoothing during the lifetime. In other words, householders will allocate portions of their current income to be used in the future when their income drops significantly, in order to have steady income inflow to retain their standard lifestyle. The income smoothing behaviour among householders is a result of the phenomenon of the life-cycle effect upon savings and wealth accumulation.

One of the most prominent frameworks for savings and wealth accumulation was developed by Modigliani and Brumberg (1954). It states that householders accumulate and decumulate their level of wealth in accordance to their age. According to them, the amount of savings and wealth accumulated is insignificant during the youth age before continuing to grow to a middle age peaking as they near retirement. After retirement, the phase of decumulation will begin in which householders convert their capital into income flow to be used to maintain the lifestyle that they used to have before retirement.

Among the factors that affect the amount of accumulated wealth is the portfolio allocation, i.e. how householders manage their portfolio to give the highest returns at their assumed level of tolerable risk. Bertaut and Mc-Cluer (2000) state that studies on portfolio allocation are important at the national and individual level for various

reasons. Firstly, savings and portfolio allocation is important because the way householders allocate their funds will affect the adequacy as well as the distribution of their retirement income. Another is that returns generated from various types of investment are different, so that they will have a different effect on the pace of wealth accumulation. At the national level, householders' spending and saving may inspire the tax policy formulation. Portfolio decisions also give an indication of the effect of macro economic variables on householders' spending and saving. At the theoretical level, portfolio decision studies provide deeper insight into theories of consumption and saving behaviour.

The empirical literature on portfolio allocation has sought to find observable variables that explain the cross sectional differences in the portfolio allocation behaviour. Early literature was based on static models which suggested that individuals choose their portfolio to maximise expected utility and the risk-return pattern of available assets as in Tobin (1958) and Mossin (1969). Similar studies were later extended arriving at the development of dynamic models for wealth allocation which aim to maximise expected lifetime utility as compared to the previous approach of maximising single period utility. Among factors related to the maximization of lifetime expected utility are human capital uncertainty (Heaton and Lucas, 1997), labour income flexibility (Bodie, Merton and Samuelson, 1992), an uncertain lifetime horizon (Foldes, 2000) and the role of incomplete portfolios (King and Leape, 1998). With the establishment of the dynamic models for wealth accumulation, the process of portfolio allocation and wealth accumulation will be continuously changing in response to householders' condition which may be due to demographic, socio-economic or purely economic factors.

In the wealth accumulation studies, researchers consider only the total effect of the wealth accumulation process aiming to maximise wealth at the end of the investment period. In contrast, portfolio allocation studies provide answers to the problem of choosing an efficient set of investment strategies in order to generate maximum

returns for wealth generation. King and Leape (1984) discuss both issues taking into account the life-cycle effect. Lamenting in both of their papers in 1984 and 1987, they stressed the fact that most studies on householders wealth was more interested in the examination of total wealth accumulation rather than the composition of assets in portfolios.

Studies on asset composition are useful since they provide an indication to the specific form of asset demand under the consideration. On top of that, the specific aspect of risks tied up with the holding of specific types of assets can be examined in detail. On the other hand, the macro view on household wealth accumulation is equally important in picturing the general behaviour of households in accumulating their assets. Hochguertel *et al.* (1997) deal with both issues by examining the total financial wealth and analysing the composition of risky assets and risk-free assets. They examined possible variables considered to be the determinants of householders' asset accumulation strategy such as the level of financial wealth, the marginal tax rate, age and education levels.

Studies on demand for financial assets may be concentrated on to the narrow demand for money to be used for transaction purposes or focusing on the broader demand for money which includes current and savings accounts which are being held for the purpose of asset holding. Thus, two approaches may be used in quantifying the demand for financial assets: the transaction approach and the asset approach. The theoretical framework for the transaction approach was developed by Baumol (1952) and Tobin (1956). Broader definition of money demand, which is the asset approach, usually followed the pattern developed by Friedman (1956). Barnett (1978) and Barnett *et al.* (1990) are among other researchers using the asset approach. Studies on demand for broader definition of money such as M2[5] and M3 are performed in cases of research aimed at greater levels of wealth.

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[5] M1 is the most liquid assets that includes all coins, currency in circulation, traveller's cheques, checking account balances, NOW accounts in the US (which is equivalent to checking accounts but

On both areas of study on demand for narrow and broad money, a small number of studies were conducted in the past at the level of the individual or householders. This poses problems since the macro data tend to inherit an identification problem. Usually generalisation cannot be made using macro-data since householders are heterogeneous in their expectation of return and risk both of which can affect their portfolio allocation. In the area of study for narrow demand of money, Barnet (1997), Cuthbertson (1997) and Mizen (1997) had called for micro foundations of aggregate money demand to be closely examined at the micro environment level in order for such studies not to inherit the problem of aggregate money demand. Gorman (1953) showed that the difficulty in this assumption is that it is quite restrictive and requires the marginal propensity to save to be constant across all individuals, regardless of differences in their socio-economic characteristics.

Taking into consideration the above scenarios, this study aims to provide a useful reference point for the demand for financial assets by Malaysian householders. It provides an examination of the allocation process made by these householders in relation to the demand for financial assets. Besides collecting the data on the amount of householders' holdings of various types of financial assets, this research at the same time collect the data pertaining to householders' demographic, socio-economic and economic background. This will allow us to examine for possible factors driving householders demand for financial assets. Further analysis of the effect of the life-cycle effect on the demand for various types of financial assets is conducted by segregating householders into several distinctive age groups.

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carries interests on the balance), automatic transfer service accounts, and balances in credit unions. M2 consists of M1 and savings, small time deposits, overnight repos at commercial banks and non-institutional money market accounts. M2 is a key economic indicator forecasting inflation in an economy. In addition, M3 is M2 plus large time deposits, repos of maturity greater than one day at commercial banks and institutional money market accounts.

This study employ the asset approach of demand for financial assets in order to be able to reflect the broader demand for financial assets in the wealth accumulation process. Micro-data from a questionnaires survey will be used to eliminate the identification problem as discussed above. Further than that, following the rapid development of Islamic financial institutions such as Islamic banks, *takaful* and Islamic unit trust companies, we are interested to examine whether households are holding less, the same or more of Islamic financial assets offered by these institutions in contrast to their conventional counterparts.

2.2 Savings and Wealth Accumulation

According to permanent income hypothesis, individuals need to maintain their current consumption pattern during their retirement. This requires them to save a proportion of their current income as savings. The hypothesis suggests that individuals are used to their current level of consumption and will try to smooth their pattern of consumption over their life-cycle. Thus, the wealth accumulation pace will be inverse U-shaped as younger individuals use a large amount of their income to finance repayment of their education, housing consumption and other costs to settle down. This then leaves them with the need to make up for lost time when they are in their midlife. The highest point of savings or wealth accumulation takes place most likely among individuals' in their forties and fifties. Later individuals will use their stock of accumulated wealth during retirement years to maintain the lifestyle they were used to during their working years.

There are various ways that may be used by individuals in order to accumulate wealth. Examples are to engage in investment activities such as investing in shares, bonds, unit trusts and investment linked insurance units. Current income may be used to finance these activities although credits are possible alternatives. Another source of finance is existing savings in the hands of individuals. With limited income and

constraints on borrowings, savings are the most promising source of finance to accumulate wealth.

2.2.1 Theories of savings

Savings literature for wealth accumulation consists of two major competing propositions. One reason to save is for retirement or the life-cycle motive. The other is to protect consumption against unexpected shocks caused by income uncertainty. These savings are usually referred as to the precautionary savings.

Savings inspired by the life-cycle motive are based on the practice of individuals to maximise their consumption lifetime utility rather than at any specific time period. Due to lifetime maximisation, a rational consumer will consume at a stable rate that corresponds to their expected average consumption over their life-cycle. This will result in an inverse U-shaped pattern of saving and wealth accumulation process which peaks when individuals are in their middle age. The rationale is that younger individuals are likely to face other high financial commitments such as house purchase and education loan payback. Thus they will save less or even engage in borrowing activities. Individuals of retirement age, on the other hand will start to consume their savings and wealth accumulated due to significant reduction in their income, since they are no longer in full-time employment. In order to match their former average consumption levels, they have to maximise their saving and wealth during their midlives. This concept is closely related to the hypothesis of habit formation or permanent income hypothesis which was long ago proposed by Duesenberry (1949).

The thinking which believed that life-cycle or age exert a large impact on individuals' savings and wealth accumulation behaviour offered a promising explanation for savings to be as low during individuals' early lives as during their retirement years. Bodie *et al.* (1992) proposed that the labour supply flexibility experienced by young

individuals induces them to save less or even borrow money. Young individuals also face higher prospects of growing their income compared to older people, although it may be argued that income levels are not certain. The information hypothesis proposed by King and Leape (1987), in another but related argument, proposed that demand for financial assets is maximised during mid-working life due to the information factor. Information seeking activities take some time so that individuals in the middle period of life are more likely to be confident to invest compared to their younger counterparts.

Saving and wealth accumulation, on the other hand, may be inspired by the motive of precaution. One major and influencing work was by Carroll and Samwick (1992), which is on the importance of the motive of precaution in savings. They found that wealth is higher for individuals who are experiencing higher income uncertainty than those who are not. The precautionary effect introduced by the uncertainty of labour income in their view will significantly motivate wealth accumulation. Caballero (1991) is more convinced in his believe that the precautionary savings motive due to labour income uncertainty alone is responsible for more than 60% of the observed net U.S total stock of wealth. He argues that his prediction is robust in the presence of lifetime uncertainty regardless of whether annuity markets exist or not. He attempted to isolate the savings produced by precautionary reasons due to labour income uncertainty as the insurance for labour income uncertainty is often limited or does not exist (Cagetti, 2003). This is due to a high coefficient of risk aversion and human wealth uncertainty and lifetime uncertainty which is associated with labour income uncertainty. Lifetime uncertainty, in addition, may possibly enhance the effect of savings inspired by precautionary motives over those inspired by the certainty of permanent employment. Caballero (1991) successfully proved that wealth originating from precautionary motives due to uncertain labour income accounts for more than 60% of the observed U.S net wealth. His results do not conflict with Skinner's (1988) study that stated that 56% of life-cycle wealth accumulation is due to this precautionary motive.

Mixed results were found in the work of Cagetti (2003). The precautionary motive of savings was found to be significant during the early working lives of individuals who were concerned about their life in retirement. In addition, he found that wealth created at retirement implied by the model of precautionary savings (with uncertain labour income) is twice as high as that implied by the pure life-cycle model without uncertainty.

In relation to theories of savings, this study examines the effect of the life-cycle or the age effect towards a savings and wealth accumulation strategy adopted by individuals. This is to prove or reject the 'folk's wisdom' which has been a famous strategy of asset allocation suggested by independent financial advisors in the industry. [6] According to majority opinions of financial planners, householders should invest in less risky assets if they are mature householders while they should be investing in more risky assets if they are young householders.

2.2.2 Determinants of Savings

Householders save for reasons such as for precaution, liquidity, consumption and in preparation towards retirement which is the heart of the life-cycle hypothesis. At the regional level, Suruga and Tachibanaki (1991) tested various theories of savings on the data set of Japanese householders. Among other theories included in their studies is the life-cycle hypothesis and permanent income hypothesis. Their primary model was designed to measure variables possibly affecting Japanese saving. Particular interest was concentrated on variables such as the number of family members, age of householders head, profession, home ownership status, size of residential area and income. Variables listed were derived from various theories of savings. They looked at the age of householders' head of the family as dealt with in the life-cycle saving

[6] See Jaganathan and Kocherlakota (1996) for the complete argument.

hypothesis and the effect of peoples professions as related to the permanent income hypothesis. Their examination take into consideration the effect of bonus payments in different professions involving both employees and self-employed.

Suruga and Tachibanaki (1991) used different models on savings so that they increased the chance of finding the significant determinants for savings in developing Asian countries. For example, income was decomposed into various sources namely labour income, property income and transfers which could be possible determinants of savings. Examination on these sources of income can enlighten possible determinants of savings so that we may be able to learn which income sources are more important than others. For example, if labour income is the most significant factor in generating personal savings, any disruptions or uncertainties associated with labour income will significantly alters the level of savings.

To illustrate the determinants for savings, Table 2.1 depicts various reasons for savings given by the participants in the Survey of Consumer Finance by families in the U.S. It can be observed from the table that the major reasons stated by the respondents are retirement and liquidity, which also means precaution.

Table 2.1: Reasons Given by Respondents as Most Important for Their Families' Saving Distributed by the Type of Reason

Reasons (Percentage)	**1992**	**1995**	**1998**	**2001**
Education	9.1	10.8	11.0	10.9
For the family	2.6	2.7	4.1	5.1
Buying own home	4.0	5.1	4.4	4.2
Purchases	9.7	12.8	9.7	9.5
Retirement	19.4	23.7	33.0	32.1
Liquidity	33.9	33.0	29.8	31.2
Investments	7.6	4.2	2.0	1.0
No particular reason	1.7	0.8	1.3	1.1
When asked for a reason, reported do not save	12.0	6.8	4.9	4.9
Total	**100**	**100**	**100**	**100**

Source: "Recent Changes in U.S Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances", Bucks, Kennickell and Moore, Federal Reserve Bulletin, 2006.

2.2.3 The Life-Cycle Hypothesis as a Model for Savings and Wealth Accumulation

The concept of life-cycle savings and wealth accumulation was introduced by Modigliani and Brumberg (1954). It suggests that the propensity to consume and the propensity to save are different at various stages of individuals' live. In the Modigliani and Brumberg's model, the exclusive motive for saving and wealth accumulation is to provide sufficient resources for retirement (Wolff, 1979). Figure 2.1 illustrates the Modigliani and Brumberg model and Tobin's model (1967) which, in contrast, suggests that an individual's net worth begins at zero level then starts to decrease to a negative level due to many commitments during young age. After that net worth increases along with age and reduces at a certain point of time, usually during retirement age. In comparison to Modigliani and Brumberg, Tobin suggests the possibility of householders incurring debt in their early working life due to study loan repayments, house purchase and other durables. The later model reflects reality more, since it considers the possibility of debt occurrence among households in their early employment period.

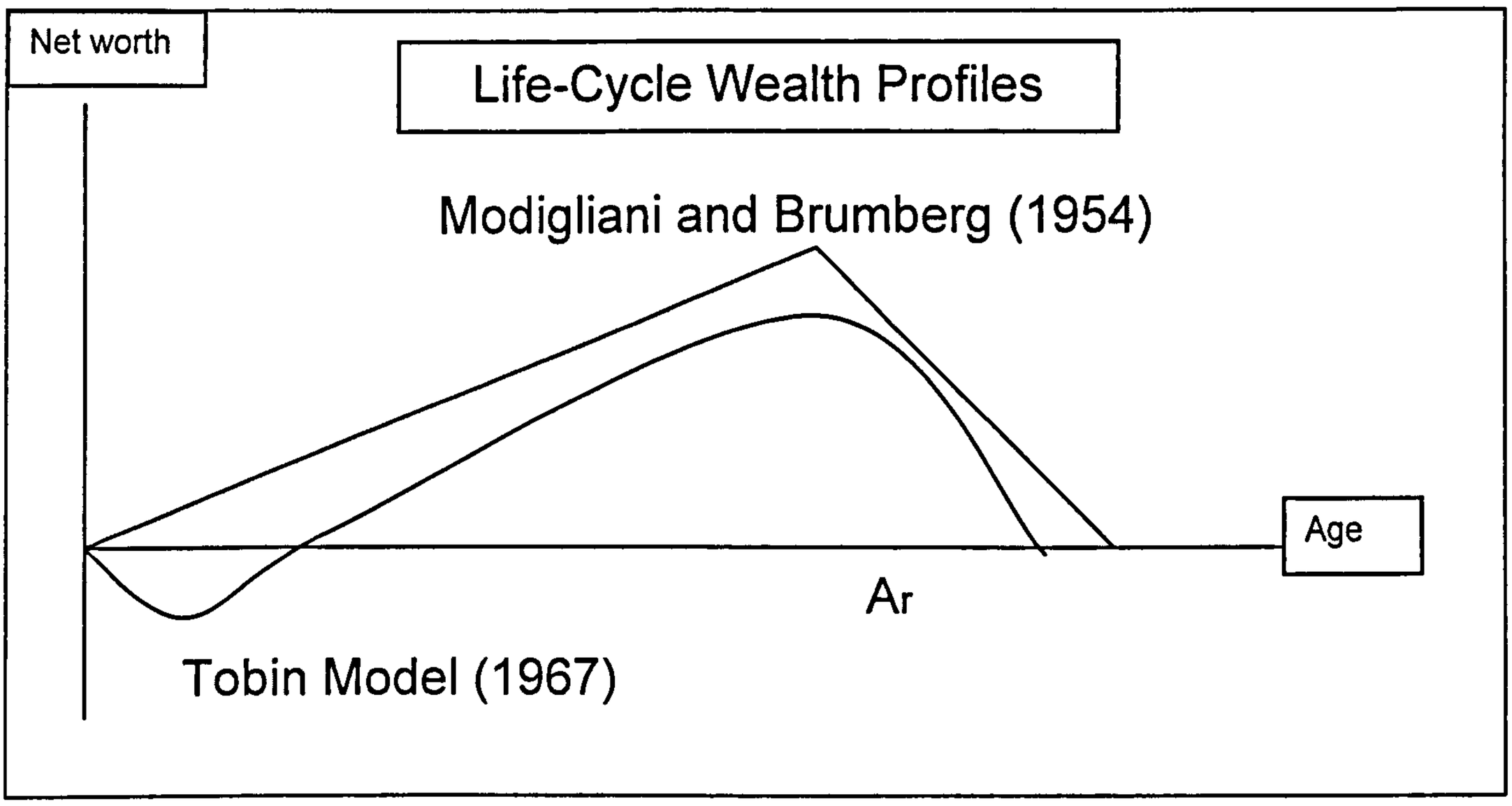

***Figure 2.1*:** Modigliani and Brumberg's (1954) and Tobin's (1967) Models of Life Cycle Hypothesis

Source: Wolff, Edward N. (1994)

Figure 2.1 demonstrates that householders net worth increases as their age increases and reduces steadily after retirement. This is due to the fact that householders consume their stock of wealth after retirement in order to maintain the lifestyle adopted during their working period. The total level of net worth is considered in the model and includes wealth held in the form of real and financial assets after consideration of all financial obligations has been made.

Poterba and Samwick (1997) highlighted the point that neither model explains the notion of portfolio allocation though they explained the total wealth holdings of individuals. In other words, Poterba and Samwick's model does not contain any indication on how householders allocate their assets or decide on the proportions of their risk and risk-free assets. To be able to explain the pattern of wealth accumulation is important because a householders' choice of asset holding contributes to the amount of accumulated assets that had can be prepared for

retirement. The choice of assets held steers the rate of returns generated by the householders' investment fund. Both the Modigliani and Brumberg (1954) and the Tobin (1967) model fail to explain the distinctive characteristics of the different types of assets: real and financial, and the differences in the degree of liquidity and rate of returns among the various financial assets.

Due to the failure of the general life-cycle models to explain the portfolio allocation issue, Poterba and Samwick (1997) embarked on a study that provides foresight on how households may actually allocate their portfolio. Results of their study show that the older householders prefer to have liquid assets for them to realise for consumption purpose. Investment in real estate and business equity among these older householders reduces for the same reason. But the reduction in real asset ownership does not apply to owner occupied housing due to the fact that householders do not actually sell them to finance the retirement. The findings are as follows (Poterba and Samwick, 1997: 24):

> *"One question that our results address is the degree to which the standard life cycle framework of asset accumulation can be applied to different components of wealth. The life cycle model posits a hump-shaped pattern of asset accumulation as householders age; they accumulate assets during their working years and spend down those assets during their retirement years. Our results suggest that the hump- shaped pattern is not uniform across all assets. For example, as a percentage of total assets, financial assets show just the opposite pattern; they decline as householders age, and then begin to increase at advanced ages. Investment in real estate and equity in privately-held businesses do display a hump-shaped pattern, as in the life-cycle model, but owner occupied housing does not, since there is no evident in financial asset ownership at older ages".*

Thus, the notion of an inverse U-shaped wealth accumulation pattern among households cannot be generalised to all types of assets; real and financial and among financial assets themselves. This is due to the degree of liquidity as well as the risk and returns characteristics. The reverse pattern of real and financial assets' ownership is evidenced in their studies. Hence, a study taking into account the ownership of real and financial assets is important in order to understand the portfolio allocation behaviour of householders; whether people switch to hold real assets as against financial assets when they age or vice versa. Furthermore, other than studying rates of ownership for financial assets (percentage of financial asset holding to total assets), the amount of ownership of every financial asset has to be taken into account. Alessie *et al.* (2000) carried out such studies to consider rates of ownership as well the amount of different types of financial assets in Netherlands.

Various other authors write about life-cycle effects on the behaviour of householders during wealth accumulation. More specifically, they write about how householders allocate their wealth by investing in specific type of assets. Veceira (1999) writes on optimal portfolio choice for long horizon investors concentrating on the non-tradable labour income as the source of funding. Bodie *et al.* (1992) collectively analyse the effect of life-cycle demand for financial assets concentrating on the effect of labour supply flexibility. Jan Tin's two-volume study (year 1998 and 2000) concentrates exclusively on the demand for financial assets according to the life-cycle hypothesis and the propensity to save of householders. The latter study adopts Friedman's theory on several factors that affect households' propensity to save, which in turn tests for the possibility of a life-cycle effect on the demand for financial assets. In addition, King and Leape's (1987) paper is useful for further examination on householders asset allocation over the life-cycle if any researcher would like to further examine the role of information in the life-cycle hypothesis. For further investigation of demand of financial assets over the life-cycle, the constraint on housing consumption is worthwhile considering. Nevertheless, this issue was discussed thoroughly in the paper of Flavin and Yamashita (1998).

As noted earlier, Poterba and Samwick (1997) specifically examined the effect of householders' portfolio allocation over the life-cycle. As portfolio allocation directly affects householders' wealth during retirement, it affects their general level of wealth and the amount of liquid assets that they hold. Poterba and Samwick studied the increasing discretion in the hands of householders in managing their own portfolio holding. The fact enhances the importance of householders making effective choices in their portfolios. They focused both on the probability that households at different times in their lives allocate their wealth to specific types of assets and in varying proportions. Their study establishes the point that the life-cycle effect upon householders cannot be generalised for every type of assets. That is every financial asset has its own pattern of increasing and later decreasing as householders age. For example, there is some decline in the reliance on traditional bank accounts and certificates of deposit with age. The notions that older householders are simply reluctant to invest in risky financial assets is not particularly true. In a nutshell, every financial asset has its own pattern of accumulation and decumulation as householders' ages change. Another point the authors make is that the standard life-cycle model stating that individual wealth accumulation poses a hump-shaped pattern to the right is not true for the holding of financial assets.

The prediction of the traditional model states that the wealth level of householders peaks at middle age and start to decrease in older age for both financial and non-financial assets. Whilst the Poterba and Samwick model makes a distinction between both types of assets and found that the standard pattern does not hold for financial asset holding, they did find , on the other hand that the financial asset holding pattern takes the reverse pattern of the standard life-cycle model. That is, the holding of financial assets is higher for younger householders, reduces during the middle age and increases again at older age. This is because financial asset holding is simply the complement to holding non-financial assets. At younger ages, householders held more financial assets where real assets were too costly to be considered. As time goes

by, householders have enough funds to purchase a house and tend to hold fewer financial assets. On the other hand, older householders tend to hold more financial assets since these types of assets are able to meet their objectives of liquidity in their old age. They particularly need liquid assets to replace their former labour income flow to spend on their current consumption as well as to pay for health related expenses which may be significantly costly.

In addition, Tin (1998) and Bodie *et al.* (1992) have offered various factors to explain the relationship between age and asset allocation decisions. These are mostly concerned with the demand for financial assets. Bodie *et al.*, for example proposed that the age related differences in the demand for financial assets were linked to the flexibility of the labour supply of households. According to them, young householders, who have more flexibility in adjusting their labour supply compared to older householders, hold more risky assets. This fact induces the life-cycle pattern on their demand for financial assets.

Further analysis of the life-cycle effect has been done by authors such as Flavin and Yamashita (1998) and Bruechner (1997). They were using the mean-efficient portfolio framework in their studies on financial assets and the constraint involved in owner-occupied housing demand. Flavin and Yamashita (1998) showed great insight in proving that the level of risk tolerance and attitude towards risk and returns consideration is the same among both young and older investors when consideration of owner-occupied housing demand was taken into account. Every rational investor is *ex-ante* identical in their pattern of demand for financial assets so the life-cycle effect actually enters the demand pattern for financial assets through the housing constraint. So the policy makers then have to be sensitive to changes in the housing market while at the same time be sensitive to changes in economic and demographic situations of householders is they were to promote the growth of financial asset holdings among householders.

This section referred to various studies dedicated to examining wealth accumulation and allocation among householders. This study is concerned with various factors affecting the holding of financial assets which might help us to predict factors related to our case. By examining the studies, this study became an informed research with the awareness of various factors which affect demand for financial assets.

2.3 Factors Affecting the Demand for Financial Assets

Various studies have been conducted predicting factors affecting the demand for asset holding. Among other variables rated important are economic factors such as income and wealth and several demographic and socio-economic factors such as age and education levels. More advanced research takes into account house, real estate and pension wealth as conditional factors affecting the demand for financial assets on top of the standard economic, demographic and socio-demographic factors. Other issues such as the health status of householders also have been considered.

2.3.1 Economic Factors

Economic variables are the major variables in the study of asset allocation and the demand for financial assets. Three major economic variables are current income of householders whether in form of labour income or business income, the level of wealth, in the form of real and financial assets, and the level of net wealth, which can be defined as the difference between total assets and total liabilities.

It should be noted that expected financial wealth increases with income. It is a major determinant of consumption and the demand for real or financial assets. The income factor has been examined in a specific manner by the introduction of human capital and labour income theory by authors such as Bodie *et al.* (1992) and Heaton and Lucas (1997).

Beside the income generated during the employment period, existing wealth level is a valid factor for asset demand. Existing wealth after considering total liability held may generate demand for assets holding. One of the important research objectives of King and Leape's 1984 paper on wealth portfolio and portfolio composition was to measure how wealth's elasticity of demand may affect the demand for a range of assets and liabilities. Their studies which used the micro-data from householders to study the subject on various assets and liabilities were desirable due to the lack of research on the demand for assets other than money demand.

In relation to wealth, Wolff (1979) also used micro data in conducting an interesting study to examine the validity of the classical model for savings and wealth accumulation of Modigliani and Brumberg (1954) and Tobin (1967). The classical model states that householders start with an insignificant level of wealth and accumulate it during their life time before starting to spend their holdings in the later period of their lives. He found that the model cannot be generalised neither to wealthy groups of householders which he considered to be the capitalist group nor to the 'second class labour', i.e. the very poor who do not accumulate assets except in the form of durables. The model is only valid for middle-income class householders who usually begin with zero or insignificant wealth and accumulate it in the course of their employment period and decumulate it in retirements. The reason for the very rich group of householders does not follows the classical model is due to the insignificant effect of labour income in comparison to their existing wealth acquired through inheritance, gifts and other sources.

Hochguertel *et al.* (1997) examined the total wealth of householders in Netherlands. They categorised their choice of financial assets into risk and risk-free assets, life insurance contracts and primary residence ownership. They found that 8% held none of these assets above and 30% held assets in one category. 34% and 25% of them held assets in two or three categories respectively. Only 3% held assets in all four

categories. In the same study, they investigated possible determinants for the portfolio structure of the respective households. The portfolio structure they examined was the choice of holding risk and/or risk-free assets. Risky assets included were shares in domestic and foreign companies, mutual funds, options, bonds and mortgage bonds while risk-free assets were used savings accounts including balances in time deposit accounts, saving certificates and certificates of deposit. They proposed variables such as levels of financial wealth, marginal tax rates, age and education levels as possible determinants. They found that the levels of financial wealth and the marginal tax rates are major determinants for the choice of risk and risk-free assets holdings for the 3,704 households under their study. Practically this means that more of higher income individuals prefer risk to risk-free assets. This is due to the fact that they face higher level of marginal taxes. Their study however, does not take into account one major component of financial assets common to the majority of householders which is retirement accounts that always form a significant portion of their total financial wealth. For example, in the case of U.S householders, 52.2% held retirement accounts. This had been revealed in the 2001 Survey of Consumer Finances. Non-inclusion of this type of financial assets might compromise their results. However, other types of financial assets typically held by householders figured in the framework.

Net wealth, on the other hand, may be defined as the difference between total wealth and total liabilities. In the classical model for savings and wealth accumulation developed by Modigliani and Brumberg (1954) net worth was considered as the reference point for the two subjects. This variable is a more powerful tool for examining asset accumulation and allocation among householders because it reflects the actual ability of householders to dispose resources in investment ventures because it takes into account their obligation toward all types of liabilities such as collateral and non-collateral liability. Net worth, hence, is a better measure than labour income and wealth in projecting the ability of demand for the financial assets of householders.

2.3.2 Demographic Factors

Demographic variables are other important variables in determining the level of demand for financial assets. Keynes' (1936) concept of marginal propensity to save and Friedman's (1956) theory of asset demand had placed a major concentration on the effect of demographic factors in their framework. Keynes in his general theory on employment, interest and money stated that the marginal propensity to save and consume is influenced by a set of subjective and objective factors, and the degree to which both sets of factors affect householders are different with divergent socio-economic conditions. The objective quality includes sets of economic variables such as income and wealth discussed above. As for the socio-economic variables, sets of demographic variables may be studied to quantify their effect towards behaviour on savings as well as the demand for financial assets.

Tin (2000) considered the insights of Keynes (1936), which concentrated on both objective and subjective factors affecting his concept of marginal propensity to save in order to examine whether changes in socio-economic conditions have a significant impact on the demand for financial assets under his analysis. The set of subjective motives identified by Keynes includes motives of precaution, foresight, calculation, improvement, independence, enterprise, pride and avarice (Keynes, 1936: 107-109).

Studies examining the effect of demographic variables were conducted in another related subject to savings which is the consumption level. This study was well documented in Hall and Mishkin (1982), Zeldes (1989), and Lusardi (1996) among others. However they concentrated less on studying the effect of demographic variables on the levels of savings, asset allocation and demand for assets by householders.

Tin (2000) suggests that since the equilibrium demand for a financial asset is a function of income or wealth (which influenced by the demographic condition of an individual), changes in the demographic variables would also affect the demand for financial assets. The study on the effect of changes in demographic variables on income and wealth has long been established by of Keynes (1936). Tin in his 2000's paper attempted to bridge Keynes' theory on the effect of subjective demographic factors on income and wealth and a predicted life-cycle hypothesis, which states that the demand for financial assets is significantly affected by the age factor. His attempt disclosed that the demand for financial assets is not only related to wealth and the discount factor but also related to demographic variables in which householders find themselves. This is in line with the prediction on the theory of savings suggested by Keynes (1936) that demographic variables enjoy a joint role with other objective factors.

Tin's (2000) study included factors such as age, the number of children, education levels, marital status, gender, and race as demographic variables to be tested as factors which could influence the level of asset demand. His results revealed that the demand for financial assets increases with age and decreases with increasing numbers of children. As for the levels of education, the coefficient is not always positive for every type of assets under analysis. Some assets meet with lower demands by educated people. As for marriage status, the negative coefficient to the level of demand for most types of assets may be linked to the number of children people have. Married couples having children will have disposable assets to invest due to significant expenses involved with their children. It goes the same for the sex status of householders. Men demand more of certain types of assets than women. Thus, as far as the results for the levels of education and sex status are concerned, a generalisation cannot be made on the level of demand for financial assets as they may have positive or negative coefficient for different types of assets.

Barber and Odean (2001) and Lott and Kenny (1999), on the other hand, found that men and women have different attitudes towards risk. Reasons for the different types of asset holding for both sexes may be explained by the psychological factor. For example, women are thought to be responsible for financial matters such as paying bills and shopping. This in the end may induce women to be more frugal than men so that in general they save more than men. Our argument above is only speculative so that future research is needed in this area of gender related behaviour related to demand for financial assets. If we suggest that men are earning more than women, we may predict that men save and invest more than women do. In our opinion, the idea suggesting that a man or woman save or invest more than their opposite sexes is not appealing because gender alone may not be sufficient to determine the level of demand for financial assets without intervention from other factors such as income, wealth and the education level.

In relation to education levels, a number of researchers specially designed their studies to examine the effect of education levels on the demand for assets, and others established a connection between householders' education levels and levels of information. Educated householders are likely to hold more risk assets such as stock, bonds and trust units owing to their attitude towards risk. For example, Hochguertel *et al.* (1997) found that better educated households invest more in stocks than less educated people. This might be due to the fact that they are able to tolerate higher levels of risk compared to less educated people owing to the higher levels of income that they earned. Furthermore, their income usually is more stable in relation to income earned by less educated people. In an extension to their study on the risk tolerance of householders, Heaton and Lucas (2000) also conducted a specific study on the effect of labour income variability.

Some authors, however, suggest that educated householders tend to hold a greater proportion of assets due to the higher level of information they possess. King and Leape (1987) suggest that educated people have better information about various

investment opportunities resulting in higher investment levels by this group of householders. Since stock and bond holdings are information consumption practice, partly in searching for the right types of stocks and bonds in accordance with peoples desired level of risk and partly in deciding the price to pay for the assets as well as the timing of acquisition and disposal for return maximisation. King and Leape's evidence suggests that incomplete information is a significant determinant in deciding the composition of householders' portfolio.

2.3.3 Health Status

The effect of health status on total wealth accumulation was conducted in Smith (1999), Venti and Wise (2000) and Wu (2003). Recently, some researchers refined their study to examine the effect of health status on the householders' asset allocation decision in order to explain how householders allocate their portfolios. Rosen and Wu (2003) documented the existence of a strong relationship between health status and portfolio decisions. They controlled the effect of level net worth, householders' income and socio-economic variables in order to separate the effects of the variables from the health status variable. Poor health significantly reduces the probability of holding risky assets such as retirement accounts, bonds and stocks. However, what the study failed to identify is how health status is related to portfolio behaviour. They did, however predict that ill health affects the ability to increase the labour supply to compensate for the possibility of the poor performance of risky portfolios. This is related to the labour income flexibility arguments of Bodie *et al.* (1992). Another health-related study conducted to examine the former effect on householders' portfolio allocation decision was that of Edward (2002) which was trying to develop a theoretical model suggesting that health status may affect portfolio allocation through the effect on risk aversion. Applied to different sets of data, the connection was later found inconclusive by Rosen and Wu (2003).

2.3.4 Institutional Effect and Market Imperfection

The major institution effect that has been thoroughly studied in the field of financial market is the taxation effect. Without proper taxation planning by householders, an investment venture might be not worthwhile. This is because it forms part of the cost of investment. One investment product may be taxed more heavily than others, subject to the direction of economic objectives desired by the government. In the subject of personal and federal taxation, Poterba and Samwick (1999) used the marginal tax rate to study the effect of federal taxation on portfolio composition.

Market institutions create their own sets of regulations and frameworks which have been set up in order to increase efficient operation of the market. Examples of regulations posed by the market operators are restrictions on short selling, minimum number of transactions to be executed, entry costs charges and exit costs charges. As for investors, the institutional frameworks have increased the cost of holding and monitoring specific types of assets. This usually results to inefficient levels of holdings of financial assets in investors' portfolio.

Market imperfections on the other hand are a phenomenon of market inefficiency. Research on the capital market always assumes perfect market conditions which seldom exist in the real world. Examples of market imperfections are borrowing and liquidity constraint and incomplete information. Young people, for example, face liquidity constraints and so are constrained from holding risky assets (Paxson, 1990). Incomplete information faced by investors may pose problems in the selection process of choosing certain types of assets. Investors, most of the time, are not aware of the conditions of risk or the possible level of returns for them to make appropriate investment decisions.

2.3.5 Labour Income and Labour Supply Flexibility

Bodie *et al.* (1992) in their study incorporating the life-cycle effect had introduced another variable that is the labour income flexibility. This is another important factor in determining the level of financial asset demand by households. Their model includes the human capital risk element as a basis for their labour income flexibility element. They established that human capital is less risky than equity. Nevertheless its value decreases with age and so will its investment in equity. Bodie *et al.* also concentrated on the ability of householders to substitute labour income for asset income. They regard this as an important factor in the demand for financial assets. Their conclusion was that young people who are have a greater flexibility of labour income hold more of risky assets compared to older householders which face less flexibility in their labour income as they approach retirement. Concerning education, they also added that educated householders are open to more labour supply opportunities and face less risk of losing income due to their ability to switch jobs in the future. This results in educated householders having more job flexibility enabling them to take greater risk in their investments.

Heaton and Lucas (1997) included the human capital uncertainty as a possible determinant for financial asset demand. The logic is that increased uncertainty over the human capital element may increase the intolerance levels of householders towards risk investing in risky assets. Heaton and Lucas (2000) further added that entrepreneurial income risk has a significant influence on portfolio choices as well as asset prices and labour income risks. They emphasise the importance of entrepreneurial risk on the portfolio choice. They suggest that householders with high proprietary business income hold less wealth in stocks than similarly wealthy householders, at a particular age profile. Their prediction is that these types of householders have higher background risks resting in their business venture as compared to householders in labour force who receive wages.

In the same development, income risk also motivates demand for financial asset holding by householders. Uninsurable income risk and future borrowing constraints may reduce the share of risky assets (Guiso *et al.*, 2001). Their paper contributes in the sense that it examines the effect of income risk and borrowing constraints householders' micro-data. Micro-data studies performed by Feldstein (1976), Mireaux and Mervyn (1987) and Leape (1984, 1987) on householders portfolio allocation do not discuss the two effects suggested by Guiso *et al.*

According to Guiso *et al.* (2001), some difficulties may arise when conducting the analysis between the income risk effect and the lack of information on borrowing constraints. For the first time, they measure the two variables and used micro-data on householders in order to examine their effect on portfolio choice. Their result confirms the prediction that householders tend to hold fewer of risky assets in case they might face income risk and borrowing constraint. The results interestingly enforce the hindsight of Mehra and Prescott (1985) regarding their observation of under-investment by investors in stocks regardless of premium returns offered by the asset. They dubbed the phenomenon to as the 'equity premium puzzle'. They suggest non-diversifiable income risk and restrictions on borrowing as possible reasons for the existence of the phenomenon. Foldes (2000) in relation to this subject studied the effect of the uncertain time horizon faced by householders as a factor in the demand for assets held by householders.

2.3.6 Demand for Financial Assets as a Condition to the Demand of other Types of Assets

More advanced studies that examine the demand for financial assets incorporate the effect of other factors as a condition for financial asset demand. Such factors include householders' ownership of real estate, owner-occupied housing and retirement account holdings. These studies can be regarded as more accurate since they consider extra variables in establishing the asset demand by householders. For example,

Kullman and Siegel (2003) studied the role of real estate in householders' portfolio choice. They consider real estate risk to be one of the background risks in a portfolio choice decision. After controlling for wealth, income and real estate risk, they found that real estate risk exposure reduces the relative holdings of stocks and other risky financial assets. In contrast, higher mortgage balances are associated with increased holdings of risky financial assets. From their observation, it can be inferred that richer householders which have a higher mortgage debt balance own more risky financial assets. Looking at the behaviour of house owners and renters, they established that house-owners hold more risky financial assets such as stocks than renters do. This phenomenon suggests that wealthy householders are more willingly to expose themselves towards investment risks compared to less wealthy householders.

Flavin and Yamashita (1998) revived the inclusion of owner-occupied housing in their study of householders' asset allocation. Their study was based on the research which had been formerly studied by Grossman and Larouq (1990). Flavin and Yamashita studied the impact of housing ownership constraints on demand for financial assets among householders by testing for the life-cycle effect. The ratio of housing to net worth declines as householders accumulate wealth; the housing constraint induces the life-cycle pattern in the portfolio shares of stocks and bonds. Flavin and Yamashita considered owner-occupied housing holding as an asset rather than as a form of consumption demand. Householders' portfolios are becoming more efficient when their portfolios include houses which cater for the consumption demand for them as well as other financial assets. This is because, in Flavin and Yamashita's model, they assume that the returns between both classes of assets are uncorrelated.

The life-cycle effect is crystallised in their findings since young householders with high house values to net asset ratios tend to hold less risky assets such as stocks in order to balance their highly leveraged portfolio. Note that as age increases, the house to net asset ratio tends to decline due to increasing wealth as the householders ages

although the possibility of rising property values can be anticipated. Their analysis, however, was not engineered to explain why young householders in fact held fewer risky assets to balance their high risk portfolio instead of paying off their mortgage balance. The hindsight is that until recently there have been fewer means by which mortgage-holders can pay off their mortgage earlier than the stipulated contract period. The essential finding of their model is that it successfully detected that young and older householders are actually identical in their risk preferences as well as in their perception towards risk and the returns for different types of financial assets after consideration of housing demand constraints. These constraints which are actually different at different ages promote the life-cycle effect in the demand for financial assets holding. If housing constraint is not significant or simply not important in household portfolios, the demand for financial assets would not have been an inverse U-shaped. Flavin and Yamashita's (1998) results, thus, are different from the research of Bodie *et al.* (1992) who states younger householders hold more risky assets due to their labour income flexibility. Their results however were extracted in a partial equilibrium model which assumed that the expected return vector and covariance matrix were time invariant or static. The results may be different had it been tested using a dynamic model instead of the static model was used.

Pollizon and Weber (2003), on the other hand, studied the subject of the efficiency of household portfolio and considered the housing demand effect. They argued that the standard tests measuring portfolio efficiency are biased since they do not consider the existence of illiquid wealth already existing in portfolios. They tested both the case of treating housing as other assets such as stocks and bonds, and treating housing ownership as a conditional element in their model. Their result showed that if housing assets were treated in the same manner as other types of assets, household portfolios would become less efficient with the inclusion of housing ownership. In other cases, where housing ownerships are treated as a conditional factor to the demand for financial assets, the condition is no longer the case. Their results, thus, support the

view that illiquid assets are an important factor in the determination of financial asset demand. They also found that hedging opportunities that housing ownership brings, was not fully utilised by Italian householders with diversified portfolios. They had formulated that returns from housing assets do have some correlation with other types of asset holdings. This is different from the view of Flavin and Yamashita (2002), which assumed no correlation between these two types of asset class. Pollizon and Weber's methodology considered the element of covariances between both types of assets and introduced the element of hedging in household portfolios with house ownership. Failure to hedge house price risks can thus be considered as an important aspect in household portfolio management.

2.3.7 The Life-Cycle Effect

The main question that has to be asked is whether the 'folk wisdom' notion that has been well discussed in the field of asset allocation is applicable for portfolio allocation decisions. The age factor had been regarded by financial planners as important in the wealth allocation of different types of assets. For example, in the course of making the choice between investing in less risky assets, such as certificates of deposit, and risky types of financial assets, such as stocks and bonds, the age factor plays important part. Questions also arise on the pattern of wealth allocation between financial assets and non-financial assets such as owner-occupied housing. Is it true that age factor itself may affect the portfolio allocation behaviour of householders or it is merely the spill-over effects to factors which age has the effect upon them? To make this point, consider the life-cycle effect which had been associated with the level of information as studied by King and Leape (1987) or the contribution of the effect of a flexible labour supply in the study by Bodie *et al.* (1992). Both of them found that age was a controlling factor to their main factor than affect the level of demand, i.e. information factor for King and Leape and labour supply flexibility for Bodie *et al.* There are several other factors which can be associated with the age

effect such an aged householder may have possessed higher amount of wealth to be invested as compared to a younger householder. Looking at various papers by several other authors, the age effect seems not to be a standalone factor in the allocation process of household portfolios.

As Jaganathan and Kocherlakota (1996) pointed out, the age factor is not the only factor which should be considered in deciding on their investment decisions since the decision horizon is very much specific to individual investor's risk, return and background risk consideration. No one practical formula or factor is adequate to build a model to achieve maximum efficiency for any investment venture to be used by a mass group of people.

In Jaganathan and Kocherlakota's (1996) study, they pointed out that financial planners' opinion that younger investors are best to invest in stocks rather than bonds were based on three reasons[7]. One of the reasons provided by the financial planners is that young investors have the longer time horizon for investment which may reduce the risk of investing in stock markets. They argue that over time, stocks are less risky. This might be due to the fact that over time, for them, fluctuations of stock prices seems to be less volatile or flatter compared with the position of the older investor who does not have time to wait for the volatility of the stock to smooth out and accumulate in value. But they argued that if we are able to adjust our stock holding over time by purchasing and selling in the short run as well as in the long run, there is no point in saying that stocks are safer in the long run. There is however one possible reason for householders not to adjust the level of stock holding and that is the cost of transactions. In addition, stock holding may be adjusted in the long run making it thus more like the short run situation. Nevertheless, investing in stocks always contains an element of risk.

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[7] For example, advice given by financial planners such as Kenneth Morris, Alan Siegel and Virginia Morris in page 7, 1995 edition of The Wall Street Journal Guide to Planning Your Financial Future.

Another reason raised by the financial planners is the target argument. They argue that younger investors with large financial obligations such as house purchases and college funds for children in the future may induce them to be actively involved in the stock market in order to fulfil their present and future financial obligations. The mathematical solution of Jaganathan and Kocherlakota (1996) revealed that this argument is also not true. The reverse should apply in the situation where younger investors fear to take on massive financial obligations commitments to invest in stock markets. They are more likely to invest in bonds markets to avoid taking risks.

The third reason is in line with the argument of Bodie *et al.* (1992) who stated that younger investors have greater flexibility in labour income so they can afford to invest more in the stock markets and offset possible losses with their labour income. Older investors are not able to do that because their labour income flexibility diminishes as they age: they have fewer employment opportunities and less power in wage rate negotiations. Both writers add that the case is true provided that the young person's labour income is not so heavily correlated with the stock returns for them to be able to hedge their losses in the stock markets. If the young investor's labour income is correlated to stock returns, then they have to invest more in bonds in order to minimise losses in line with the portfolio theory of Markowitz (1952) on the subject of correlation between asset returns property. If returns from two assets are heavily correlated, ownership of both will reduce the benefit of portfolio diversification for the portfolio to be an efficient portfolio.

Their discussion about the subject inspired us to further examine the relationship between the ages of households and the choice of investment they should take to maximise their portfolios' potential. We will examine on the effect of age on portfolio allocation decision at different age of life after considering other factors sensitive to age such as levels of wealth, education, labour market status and home ownership.

2.4 Household's Portfolio Allocation and Demand for Financial Assets: International and Comparative Researches

Studies performed in different countries are important in the way that these studies enlighten readers on the application of sets of important variables that affect the level of demand for financial assets. In addition, studies that cater for different environments in which asset demand is examined will enrich reader's knowledge on asset demand. For example, in Japan, financial asset demand is often restricted by the need for expensive house ownership. This has driven many researchers to study financial assets demand and consider the utmost importance of house ownership. This section provides relevant literature on the subject from such countries as Japan, Italy, the U.S, UK and Netherlands.

2.4.1 Japan

Studies on household allocation strategies adopted by the Japanese were carried out by a number of authors such as Iwaisako (2003), Yamashita (2002) and Suruga and Tachibanaki (1991). Iwaisako in his study on household portfolio found that there is a decreasing trend of Japanese household investment in stocks in general despite the current trend of increasing ownership of this particular type of assets in the U.S and other European countries. Further than that, he cited the issue of the life-cycle effect of stock holding for household in Japan in order to contrast the observations made by Ameriks and Zeldes (2001) on the existence of a life-cycle effect on stock holding in the U.S. Ameriks and Zeldes stated that the unconditional equity shares in financial assets have an inverse pattern according to age and peak in the late forties and fifties for U.S householders.

Iwaisako (2003) also revealed that equity in financial wealth increases with age among young householders, peaks in their fifties and becomes constant thereafter. This finding is consistent with other research in western countries. He stresses, on the

other hand, the fact that the ownership of a house especially in the form of owner-occupied housing demand is not negligible in determining whether the financial asset ownership of Japanese people shows the life-cycle effect. His argument is that the housing demand for the young in Japan may form a constraint in the demand for financial assets. He also establishes that the demand for housing is actually promoting a hump-shaped pattern of financial asset holding for Japanese. Without a proper consideration of the demand for housing, the true picture of whether household demands for financial assets demonstrate the life-cycle effect cannot be determined. This fact is well established in the work of Yamashita (2002) where he places a housing constraint on his study of financial asset demand by the Japanese. By placing constraints on the ratio of house values to net wealth, the true measurement for financial asset demand to follow a life-cycle effect is possible. Iwaisako and Yamashita arrive at the same findings saying that the housing demands for Japanese households are actually the reason why the demands for financial assets indicate the effect life-cycle. They establish that the effect of housing is in fact not negligible when considering the life-cycle effect for financial assets holding.

One interesting reason offered by Iwaisako (2003) on the financial asset holding of Japanese households is that the Japanese high rate of savings is actually inspired by the need for housing ownership. This reflects by the imperfect market for housing in Japan, the volatility of the housing market and high land values. The central decision a household has to make is whether to invest in a house. Other investment decisions revolve around this decision. For example, a young household must save significantly to make the down payment for his house and later take on a large mortgage for it. Due to the high leverage that he has, he is not able to take risks to invest in stock markets which results in more funds being channelled into fairly safe and safe assets. His study is fairly comprehensive since it takes into account several data sets on Japanese household finances available in Japan. He makes use of the aggregate data from the National Survey Data, the Bank of Japan, and finally from the Nikkei Survey Data which is a micro data source which is extracted directly from the

Japanese households. The composition of household financial wealth analysis is done using three sources of data. These rich data sets lend credibility to Iwaisako's findings on the structure of demand for financial assets for Japanese households.

2.4.2 UK and the US

A comparative study between the UK and the U.S was conducted by Banks *et al.* (2002), in which their particular aim was to explain the difference of household wealth distribution between the US and UK with emphasis placed on the housing and the stock markets. They argued that both markets have to be studied in order to understand the main features of household finances and asset allocation in both countries. The main findings of their study were predictable with the current development of the housing market in the UK. They established that the feature of housing market in the UK which significantly dictated the differences of household wealth allocation between both countries was the higher price volatility for housing which acts as a consumption service and wealth allocation vehicle which results in the young householders in the UK investing so heavily in their house that they have less wealth to invest in financial assets. The comparative figures for financial assets for holding both countries reveal that mean and median value for UK householders are significantly less for all age groups as compared to the US householders. Although several complications arise during the process of comparing for differences in both countries' householders finances and wealth allocation, they were able to reconcile their data sets for the results to be comparable.

On the other hand, specific studies on household wealth allocation and demand for financial assets has been done by a number of authors making use of diverse data available in the area of consumer finances provided by number of surveys such as the Survey of Consumer Finances and the Survey of Income and Participation. Examples are studies conducted by Aizcorbe *et al.* (2003) on the recent changes in US family finances, and by Kennickel and Starr-Mc Cluer (1997) on household savings and

portfolio savings over years of 1983 and 1989. Bertaut and Starr-Mc Cluer (2000) also wrote about household portfolio in the U.S. All of these studies listed have used data from the Survey of Consumer Finances.

2.4.3 Italy, Netherlands and the US

A comparative study was conducted to explain the differences between Italy, Netherlands and the US, which was conducted by Kapteyn and Panis (2003). They looked at the institutional effect of pension and retirement income provision for all three countries. Their concerns were more on the institutional differences for wealth accumulation and portfolio composition nearing to retirement. They formulated several hypotheses to test for the institutional differences which they had expected. Hypothesis one related to the coverage of the retirement benefit provided by each country. With less coverage provided by the U.S pension providers, higher savings rate were expected for householders in the U.S. Hypothesis two related to the effect of earnings and consumption uncertainty. Householders were asked a direct question on the level of income uncertainty they had experienced and the respondents who claimed the highest level of income uncertainty did come from the U.S. Regarding the consumption uncertainty, they chose out-of-pocket medical expenses to be the proxy for the variable. Again, householders in the U.S are more likely to face larger out-of-pocket medical expenses compared to their counterparts in the Italy and Netherlands since both European countries' pension schemes cover most of the medical expenses to be normally incurred by householders. Furthermore, householders in the U.S are expected to have higher rates of savings and wealth accumulation as income and consumption uncertainty is higher than that of its counterpart under the analysis.

Hypothesis three relates to the role of capital market imperfections. Capital market imperfections in this case are the borrowing constraint for the young householders after considering the amount for the minimum down payment required to buy a

house. In the U.S the typical minimum down payment requirement is about 10% to 20% of the house value. In the Italy, the amount will be around 40% to 50%. The situation is different in the Netherlands where householders may borrow up to 10 percent value of the house in order to make a house purchase. Given the facts, the prediction is that householders in the Netherlands are less likely to save as much as their counterparts in the U.S and Italy. In hypothesis four, Kapteyn and Panis (2003) predict the level of private wealth to be a factor in portfolio composition to be which favour stock holding for the richer householders in countries under their analysis. They predict that householders in the U.S and Italy should hold a higher proportion of stocks in their portfolio compared to householders in the Netherlands. But considering the development of capital market, householders in Italy may possibly hold more stocks since its capital market is less developed than other two markets.

Around these hypotheses, they discovered several facts on household wealth accumulation and portfolio composition. These can be found on page 33 of their paper on the size and composition of wealth holdings in the United States, Italy and the Netherlands. The results can be summarized as follows:

a) Americans should save more for retirement than the Dutch or the Italians;
b) Americans should save more due to more exposure to uninsurable income and consumption risk;
c) Italians should save more due to severe borrowing constraints in their country;
d) The Dutch should have relatively low stockholdings due to the low level of private wealth; and
e) Stock-ownership in the U.S should be higher than in Italy because of the more highly developed capital markets in the United States

2.4.4 Netherlands

The study of Alessie *et al.* (2000) is a comprehensive one examining various aspects of household portfolio allocation in the Netherlands. They used static and dynamic models to look at the ownership rates of assets as well as the amount invested. The static model was used to examine the background variables of householders in choosing which types of assets to hold. The background variables examined were income and wealth, age, education levels, labour market status and the geographical location of householders. Due to the rich data available, they were able to further study the subjective variables such as attitudes towards risk-taking and the degree of information available to householders on financial assets. The dynamic model was engineered to look at the effect of previous holdings of financial assets on current period holdings. Their study is a comprehensive one looking at different angles relating to household asset allocation. The financial asset classes examined in this study were risk-free assets such as transaction and savings accounts and certificates of deposit: risky assets consisted of ownership of stocks, bonds and mutual funds, life insurance and defined/contribution pension benefit.

They emphasised the defined contribution plan due to the fact that its use by Dutch householders amounts to more than 50% holding to their total financial assets. This case is comparable to the situation in Malaysia where mandatory employee contribution to the Employee Provident Fund (EPF) forms a large share of householders' financial assets. This study may then provide a useful insight for our study on the financial asset holdings of Malaysian householders. One particular concern in our case is that householders are given minimal authority to manage their account. Many are unable to optimise their contribution in EPF by investing in other investment avenues. The exception was stated in the case of householders with more than MYR 50,000 in account 1, who can practically invest in unit trust, financial asset investment decisions cannot be exercised by Malaysian householders. In the case of the Netherlands, beside pension plans, there are schemes that also assist householders

in planning their savings decisions which resemble the IRA accounts in the US which may need the plan for financial allocation decision by the householders.

In Alessie *et al.* (2000), aggregate data used in their study was based on the National Accounts 1998 Statistic Netherlands which for the first time had published a household sector in its Flow of Fund Statement. This publication reports the size and composition of financial assets but does not include the holdings of real assets.

One observation from the Flow of Fund Statement is the increase in financial net worth. Most financial transactions are executed by the pension funds and insurance companies. Other than that, there is evidence of substantial changes in portfolio composition. Funds in transaction and savings accounts increased by 22% but at a slower rate compared to financial net worth. The same goes for certificate of deposit funds. Investment in risky financial assets such as stocks and bonds had also increased from 22% to 25%. They also commented on the importance of defined-benefit contribution plans to be compared with other European countries' figures. Significant holdings are promoted by the favourable tax treatment of this type of financial asset. In addition, the National Accounts publication provides the statistics on debt levels such as mortgage payments and short term debt.

Micro-data used in Alessie *et al.* (2000), on the other hand were obtained from the Center Savings Survey (CSS). From this survey, information about households such as age of household head, education levels, labour market status, health status and detailed information about types of income, assets and debt is collected. Questions about economic-psychological on risk attitudes and information on financial is collected in this survey as well. Information on various types of financial assets and Employer Sponsored Saving Plan (ESSPs) statistics are collected during this survey. Its features resemble those of IRAs in the US but are less liquid.

2.4.5 Islamic Financial Asset Demand in the U.S & the studies on money demand in Malaysia

In relation to the demand for Islamic financial assets, a survey was in the U.S reported and Failaka.com[8] on the descriptive aspects of the demand. Among data collected is a demographic analysis of the respondents such as their profession, age, country of residence, level of education and income level. The demographic data collected in this study is in line with other studies discussed earlier in the chapter. The responses from the participants can be found in the full report of the survey in Appendix 1. The survey indicated that the level of current investment of respondents is surprisingly low with 59% of respondents stating that they do invest while the remaining 41% stated that they do not. It has to be noted however that investment had been defined in the American context. In this case, investment is defined as the ownership of stocks, bonds, money market, real estate, ownership in private companies and retirement accounts such as IRA and 401(k) while the ownership of occupied housing is not considered as investment as for the survey is concerned.

Interestingly, a high percentage of respondents (38%) reported that they owned conventional investments as opposed to only 18% who reported that they own only *halal* investments. 44% of the respondents, however, reported that they own a combination of conventional and *halal* investments. To learn more on the motivation of the respondents to behave in the way, the researcher asked the respondents why they do not own *halal* investments. The responses obtained are shown in Figure 2.2.

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[8] The full report can be viewed from: http://www.failaka.com/Library/Articles/Failaka%20Survey.pdf. The link retrieved on 1 November 2006.

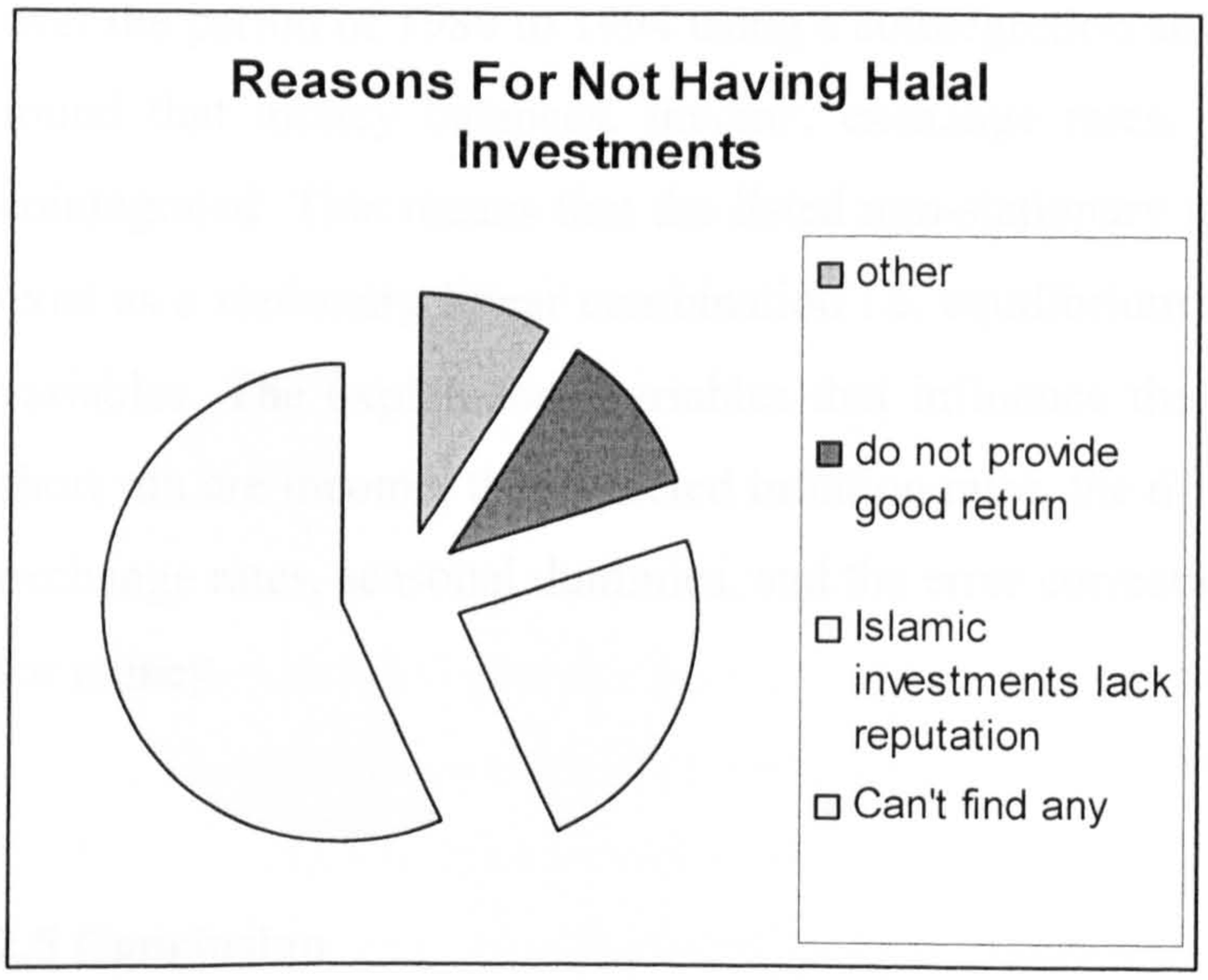

***Figure 2.2*:** Pie Chart Showing Reasons for not having *Halal* Investments

Source: http://www.failaka.com/Library/Articles/Failaka%20Survey.pdf. Retrieved 1 November 2006

The pie chart shows that the majority of respondents (57%) could not find any *halal* investments. The high percentage suggests that the availability of Islamic compliant products in the U.S is not yet easily reached by the general public. 23% of them indicate that Islamic investments lack a good reputation. 11% of the respondents gave their reason that Islamic investments do not yield good returns. The remaining 9% gave other reasons that are not explained further in the report.

In Malaysia, few studies were conducted on the demand for financial assets. As the demand for cash balances can be regarded as partly that of a demand for financial assets, studies conducted by Marashdeh (1997), Habibullah and Ghaffar (1987) and Habibullah (1989) contribute to the literature on the demand for financial assets in Malaysia. However, these studies only dealt with the demand for cash balances, which is not the concern of our research. Although this was the case, their research might still shed some light on the selection of variables and on the demand for money balances in general. Marashdeh (1997) estimated the demand for money in Malaysia

over the period of 1980 to 1994 using a cointegration and error correction method. He found that money balances, income, exchange rates, prices and interest rates are cointegrated. This means that the listed non-stationary random variables listed above exist as a stationary linear combination i.e. equilibrium level can be achieved for the variables. The explanatory variables that influence the money demand (M1) in the short run are income, the expected inflation rates, the 6-month deposit rates, expected exchange rates, seasonal dummies, and the error correction from the long-run demand for money.

2.5 Conclusion

Studies conducted in various countries on wealth accumulation and portfolio allocation inspires us to study how householders in Malaysia devise their portfolio from the choice of financial assets available. Methodologies employed and data used in various studies may provide a starting point for us to study how householders in Malaysia allocate their portfolio. In order to learn about the demand for financial assets in Malaysia, a survey on Malaysian financial system and types of available assets will be presented in the next chapter.

CHAPTER 3

THE DEMAND FOR FINANCIAL ASSETS IN MALAYSIA: A SURVEY

3.1 Introduction

An assets acquisition process during an individual's lifetime is exercised in order to save and accumulate wealth in preparation to reduce a later gap between expected and actual consumption. Assets held by householders can be in the form of financial and non-financial assets. Non-financial asset holding will usually be in the form of housing demand, motor vehicle ownership and equities in business ventures. They are long-term investments which also usually come with long-term financial commitments. Financial asset holding, on the other hand, may well serve the purpose of long-term investment and short-term liquidity needs. This is because choices of financial assets range from long-term, medium-term and short-term ownership. For example, government bonds and saving bonds are usually designed to be long-term investments with the maturity dates which can be up to a period of twenty years. For the medium term, shares, treasury bills and unit trusts ownership may be the suitable avenue. For short-term liquidity purposes, householders may keep savings accounts and negotiable certificates of deposits. Both of these assets will attract income and can be withdrawn without any penalty.

In developing countries, the depth and width of the financial and capital markets are limited in comparison to those in developed countries such as the U.S, the U.K and Japan. A financial market can be regarded as deep if it has a high level of liquidity while it is referred to as wide if it has an extensive range of financial products that investors may choose from.

The lack of depth and width of financial markets in developing countries such as Malaysia have made householders less inclined to hold financial assets in favour of holding physical or real assets. Valverde *et al.*, (2003) as reported in Levine (2005) argued that financial intermediaries mobilise, pool and channel domestic savings into productive capital and by doing so they contribute to economic growth. In addition, in a competitive banking sector, borrowing rates are higher and lending rates are lower, so the transformation of household savings into productive capital is faster. Malaysian householders, less sophisticated at present in finance and investment knowledge, are limiting their participation in financial assets. In developing countries such as Malaysia, financial asset holding are to be held in the form of simple deposit instruments such as savings and current accounts and fewer in sophisticated investment avenues such as unit trust or equities.

Table 3.1 illustrates basic statistics on population, Gross Domestic Product (GDP), Gross National Income (GNI) and GNI per capita of Malaysian households.

Table 3.1: Basic Statistics on Population, GDP and GNI in Malaysia

Population (in Million) 2006	26.64
Age 65 and above (%)	4.30
Between ages 15-64 (%)	63.30
Under 15 (%)	32.40
Gross Domestic Product, Current Prices (MYR Million) 2006 3rd Quarter	141,360
Gross National Income, Current Prices (MYR Million) 2006 3rd Quarter	136,432
Per Capita GNI, Current Prices (MYR) 2006 3rd Quarter	20,434

Source: Bank Negara Malaysia (http://www.bnm.gov.my/index.php?ch=111#FinancialSector), Department of Statistics Malaysia (http://www.statistics.gov.my/english/frameset_keystats.php). Retrieved on 5th November 2006

3.2 Financial Assets Holding in Malaysia

A survey on basic information about financial asset holdings in Malaysia is provided next in the chapter, which consist of transaction accounts, certificates of deposit, savings bonds, bonds, shares, unit trusts, retirement accounts and life insurance.

3.2.1 Transaction accounts

Transaction accounts in Malaysia consist of savings accounts and current accounts. All commercial and Islamic banks offer this type of product for their customers. Interest rates or profit rates on savings accounts range from 0.3% to 3.00% per annum according to the amount and type of deposit. The rate varies from one bank to another but it is competitive. Nevertheless, one bank's rate is very similar to the others. Some banks offer a high introductory rate of interest. The profit rates for Islamic compliant deposits are calculated differently based on the percentage of profit sharing ratio of the bank and the customer. For example, Affin bank's profit rate for its Islamic compliant deposits is as follows:

Table 3.2: Islamic Banking Deposit Rate for Affin Bank with Effective from 16th April 2006 to 15th May 2006

Types of accounts	Amount of deposits	Profit Rate
• Savings Account-i (profit sharing ratio 65 : 35) (effective 1st December 2005)	Less Than MYR 1,000	Nil
	MYR 1,000 to MYR 5,000	0.25% p.a.
	MYR 5,001 to MYR 10,000	0.50% p.a.
	MYR 10,001 to MYR 50,000	1.50% p.a.
	Above MYR 50,000	1.75% p.a.
• Al Mudharabah Savings Account-i (Affin Tiny- • Tycoon-i) (profit sharing ratio 75 : 25)	Less than RM1,000	Nil
	MYR1,000 and above	1.35% p.a.
• Current Account-i (profit sharing ratio 25 : 75)		1.00% p.a.
• Affin Plus Account-i (profit sharing ratio 75 : 25)	Below MYR 2,000.00	Nil
	MYR 2,000.00 and above	1.50% p.a. (0.05%+1.45%

Source: http://www.affinbank.com.my/rates/ratesib.htm. Retrieved 5th September 2006

Current accounts usually do not provide interests returns but some banks for example, RHB My1 Account provides interest on current accounts customer's 5% withholding of tax on deposits of more than MYR 100, 000. This is an example of product diversification practiced by banks to distinguish themselves with similar products available in the market.

Table 3.3 lists all licensed banking institutions in Malaysia. They consist of commercial banks, Islamic banks, finance companies, merchant banks, finance houses, other financial institutions and money brokers.

Table 3.3: Lists of licensed banking institutions in Malaysia as at 1st January 2007

	COMMERCIAL BANKS	**OWNERSHIP (FOREIGN/LOCAL)**
1	ABN AMRO Bank Berhad	F
2	Affin Bank Berhad	L
3	Alliance Bank Malaysia Berhad	L
4	AmBank (M) Berhad	L
5	Bangkok Bank Berhad	F
6	Bank of America Malaysia Berhad	F
7	Bank of China (Malaysia) Berhad	F
8	Bank of Tokyo-Mitsubishi (Malaysia) Berhad	F
9	Bumiputra-Commerce Bank Berhad	L
10	Citibank Berhad	F
11	Deutsche Bank (Malaysia) Berhad	F
12	EON Bank Berhad	L
13	Hong Leong Bank Berhad	L
14	HSBC Bank Malaysia Berhad	F
15	J.P. Morgan Chase Bank Berhad	F
16	Malayan Banking Berhad	L
17	OCBC Bank (Malaysia) Berhad	F
18	Public Bank Berhad	L
19	RHB Bank Berhad	L
20	Southern Bank Berhad	L
21	Standard Chartered Bank Malaysia Berhad	F
22	The Bank of Nova Scotia Berhad	F
23	United Overseas Bank (Malaysia) Berhad.	F
	ISLAMIC BANKS	
1	Bank Islam Malaysia Berhad	L
2	Bank Muamalat Malaysia Berhad	L
3	Commerce Tijari Bank Berhad	L
4	Hong Leong Islamic Bank Berhad	L
5	Kuwait Finance House (Malaysia) Berhad	F
6	RHB Islamic Bank Berhad	L
	FINANCE COMPANIES	
1	Kewangan Bersatu Berhad	L
	MERCHANT BANKS	
1	Affin Merchant Bank Berhad	L
2	Alliance Merchant Bank Berhad	L
3	AmMerchant Bank Berhad	L
4	Aseambankers Malaysia Berhad	L
5	Commerce International Merchant Bankers Berhad	L
6	Malaysian International Merchant Bankers Berhad	L
7	Public Merchant Bank Berhad	L
8	RHB Sakura Merchant Bankers Berhad	L
9	Southern Investment Bank Berhad	L
10	Utama Merchant Bank Berhad	L
	FINANCE HOUSES	
1	Abrar Discounts Berhad	L
2	Affin Discount Berhad	L
3	Amanah Short Deposits Berhad	L
4	CIMB Discount House Berhad	L

Table 3.3: Lists of licensed banking institutions in Malaysia as at 1st January 2007 (continued)

5	KAF Discounts Berhad	L
6	Malaysia Discount Berhad	L
7	Mayban Discount Berhad	L
	OTHER FINANCIAL INSTITUTIONS	
1	ERF Sdn. Bhd.	L
2	Pengurusan Danaharta Nasional Berhad	L
	MONEY BROKERS	
1	Affin Moneybrokers Sdn Bhd	L
2	Amanah Butler Malaysia Sdn Bhd	L
3	First TAZ Money Brokers Sdn Bhd	L
4	Forex Enterprise Sdn Bhd	L
5	Fulton Prebon (Malaysia) Sdn Bhd	F
6	Harlow's (Malaysia) Sdn Bhd	F
7	KAF-Astley & Pearce Sdn Bhd	F
8	MGI Moneybrokers Sdn Bhd	F

Source: Bank Negara Malaysia
Available at: http://www.bnm.gov.my/index.php?ch=13&cat=banking. Retrieved 23rd April 2006

According to BNM statistics[9], the Islamic compliant demand deposit was at MYR 3,505.2 million as at October 2005 and had risen to MYR 4,236.1 million as at October 2006. In addition, Islamic compliant saving deposits were recorded at MYR 9,359.2 million and MYR 10,624.2 million during the same period referred above. These indicate a steady growth of savings by private individuals in Malaysia, as Islamic compliant deposits are concerned.

On the other hand, the conventional saving deposits for individuals was recorded at MYR 60,152.8 million as at October 2005 and MYR 62,270.6 million as at October 2006, indicating an increase of about MYR 2,000 million.[10] The figures, if compared with the level of Islamic compliant savings, are significantly higher for both periods. This suggests that Islamic banks still have much work to do before they can compete with conventional financial institutions on a levelled playing field.

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[9] Data obtained from Bank Negara Malaysia's website, available from: http://www.bnm.gov.my/files/publication/msb/2006/10/pdf/ii_18.pdf. Retrieved on 22 December 2006
[10] Statistics in this part also obtained from Bank Negara Malaysia's website. Available on: http://www.bnm.gov.my/files/publication/msb/2006/10/pdf/ii_13.pdf. Retrieved on 22nd December 2006

3.2.2 Certificate of Deposits

A certificate of deposits is a type of market instrument. In Malaysia, the term Negotiable Certificate of Deposits (NCD) is used in order to reflect the fact that this paper money is negotiable. It is issued by banks acknowledging the deposit of a specific sum of money for a fixed period of time which earns a fixed interest rate. An NCD with tenure of one year or less is paid with the principal amount at maturity. As compared to fixed deposit, certificates of deposit are negotiable and can be bought and sold before the date of maturity. The reward for holding NCDs is that holders have a high degree of liquidity for short-term and medium-term funds as compared to fixed deposits. An NCD gives you the flexibility to sell the certificates at any time without having to pay any penalty. Apart from the interest income, holders will benefit from capital appreciation from trading an NCD. ABN AMRO bank Malaysia Berhad, for example offers NCD of MYR 500, 000 per transaction.

EON Bank Berhad, on the other hand, offers Negotiable Instruments of Deposits (NIDs) that have tenure periods ranging from one month to a period of ten years. The minimum denomination for its NIDs is MYR 100,000 and the maximum amount is MYR 10,000,000. In addition to conventional negotiable instruments of deposit, the EON Bank also offers Islamic compliant certificates called Negotiable Islamic Debt Certificates which have been structured using the concept of *bay' bithaman 'ajil* (deferred payment sale). Although the name suggests that the product is a debt instrument, it simply means that the sum of money deposited by investors with the banking institutions repayable at a specified future date at the nominal value. The income will be in the form of profits shared among the depositors and the bank. As the instrument is negotiable, it means that it can be further traded on the open money market by holders at discounted prices.

At the institutional level, Malaysian Derivatives Berhad, a subsidiary of Bursa Malaysia launched a program that can be used by large financial institutions such as banks, fund managers and other corporate bodies as a risk management and portfolio management tool. The program is called Exchange of Futures for Physical (EFP). EFPs are an established feature not only of the commodity markets but also of the financial futures market. Their flexibility, ease of execution and limited risk makes them a popular choice amongst investors who need to hedge large portfolio exposures or to switch positions between the cash and futures markets.

An EFP is created when two parties agree to exchange a commodity or financial instrument (i.e. a bond, banker's acceptance etc.) and then simultaneously agree to also take out an equivalent and opposite futures hedge. EFP effectively transfers a pre-settlement credit risk on the underlying physical market from the two parties to the clearing house from the period from which the date the EFP was transacted to the date the underlying was delivered.

Among products dealt with in EFP transactions are NCDs. The illustration on the use of NCDs for the purpose of exchanging futures for physical assets is provided on the Malaysian Derivatives' website. The illustration is as follows:

> *"Assume it is now May and a Malaysian bank (Bank XYZ) has a large holding of NCDs on its balance sheet. Bank XYZ is holding the NCDs in expectation of interest rates falling.*
>
> *In order to bring down the size of its balance sheet but still keep its bullish stance on interest rates, Bank XYZ will need to liquidate the cash NCDs and buy an equivalent amount of KLIBOR[11] futures contracts. Bank XYZ is very concerned that if it transacts the cash and futures transactions independently*

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[11]Defined as Kuala Lumpur InterBank Offer Rate which acts as a benchmark to the levels of interest rate in Malaysia

of one another, it will suffer price slippage because of the size of the transaction.

The EFP mechanism allows Bank XYZ to ask its broker to find another financial institution who is willing to take on both the cash and the futures position. After contacting a few potential counterparties, another bank (Bank QPR) agrees to buy the NCDs from Bank XYZ and simultaneously sell KLIBOR futures to Bank XYZ.

After negotiating the cash versus futures basis, Bank XYZ and Bank QPR transact an EFP. The details of the transactions made are shown in the Table 3.4.

Table 3.4: An Illustration to Demonstrate the Transaction of Cash Market and Futures Market

Cash Market	Futures Market
Bank XYZ sells RM 250 million of 90-Day NCDs to Bank QPR at a yield of 11.00%	Bank XYZ buys 250 KLIBOR futures from Bank QPR at 88.85 (11.15 %)

Source: http://www.mdex.com.my/updates/2002/230802.htm retrieved on 7th October 2006.

This example illustrates how EFPs can be used by large financial institutions to transfer positions from the cash market to the futures market. This can be done with total price certainty and in sufficient volume to satisfy the needs of both parties.

While in this example an EFP was used to transfer a position from the cash to the futures market, it is also possible to do the opposite type of transaction.

For example, if a bank held a long position in KLIBOR futures it could use an EFP to turn this position into an equivalent holding of short term securities such as treasury bills or certificates of deposits. Such a transaction may be useful when a bank has a KLIBOR futures position which is due to expire soon.

Rather than having the position to be in cash and then needing to do a separate cash market transaction, the bank could transfer their KLIBOR position into the cash market by doing an EFP. Both legs of the EFP are transacted simultaneously in volume and at a fully negotiable price.

From the illustration we may understand that NCDs can be used by fund managers and other financial institutions alike in order to manage portfolios by switching physical financial assets to futures products or vice versa with other parties. This will enhance the diversification of fund portfolios thus reducing risks while maximising returns on investments. Although the holding of NCDs is considerably low among Malaysian households, they are in fact enjoying the benefit of holding NCDs via the diversification of risk introduced by NCDs in their investment portfolio held by the banks, EPF and unit trusts.

3.2.3 Savings Bonds

Savings bond can be defined as a type of government bond that earns interest. A high rate of interest is paid but cash is tied up in the account for a period of time. Savings bonds are non-marketable and non-negotiable form of securities. Once they are purchased, they cannot be bought or sold in the secondary market. In the U.S savings bonds have been categorised as one of the securities issued by the U.S Treasury. Other types of treasury commodities such as Treasury Bills, Treasury Notes and Treasury Bonds are heavily traded on the secondary market.

In Malaysia, Bank Negara Malaysia issued Bon Simpanan Merdeka, a form of savings bonds that was structured according to the Syariah principle, *Bay' Al-Inah* (sell and buy-back arrangement). The bonds are issued exclusively to pensioners. According to Bank Negara Malaysia (BNM), the purpose of this bond issue is to provide assistance to retirees who depend primarily on interest income from deposits placed with the banking institutions. The prevailing low interest rate environment has

adversely affected the disposable income of this segment of the population. As such, the bonds carry a slightly higher return than market interest rates.

In the press statements[12] issued by BNM, it was stated that the following are eligible to purchase BSM 04/2005:

- Malaysian citizens, aged 55 years and above;
- Malaysian Armed Forces personnel who are on mandatory retirement; and
- Malaysian citizens who have retired on medical grounds (as certified by the Medical Board) under the age of 55;

With the condition that they are individually:

- Not employed on a permanent basis, and
- Not adjudged as a bankrupt.

Four issues were made in 2005. For BSM 04/2005 the fund size is MYR 300 million, with the profit margin set at 5% per annum, which is higher than the 12-month commercial bank fixed deposit rates. The return from the bonds is also tax-exempt. The profit from the bonds will be paid every quarter directly to bondholders' designated bank account. The minimum amount that can be purchased is MYR 1,000 and in multiples of MYR 100, up to a maximum of MYR 100, 000 per bondholder, with a maximum holding of five certificates.

As savings bonds are the safest form of investment that earns a high rate of return, this investment avenue is suitable to safeguard the financial wellbeing of elderly householders on reduced income upon retirement. This measure is a way that the government has taken in order to ensure that poverty among pensioners is reduced.

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[12] Available on: http://www.bnm.gov.my/index.php?ch=8&pg=14&ac=841. Retrieved on 19th December 2006

By investing in this type of bonds, elderly householders will be able to diversify their savings in employee provident funds and earn higher rates of return at the same time.

3.2.4 Bonds

The corporate bond market maintained its strong position as a source of fundraising with the Securities Commission (SC) approving 126 private debt securities issues in 2005 amounting to MYR 60.7 billion, an increase of 27% from the MYR 47.8 billion approved in 2004. It is noted that a significant portion of funds raised was for debt refinancing (Security Commission, 2006).

Bonds are fixed income investments, so called because the issuer of the bonds pay a regular fixed interest or coupon to the investor who buys and holds the bonds until the bonds mature at a specified date. Issuers of bonds are the government, corporations and large financial institutions. Corporate issued bonds are usually called private debt securities. Parties who buy bonds are usually large financial institutions such as banks, insurance companies, managed funds and other institutional investors. Individual investors do not normally participate in the bond market as they are normally sold over-the-counter (OTC) in large amounts; an average issuance amounts to MYR 5 million.

The size of the bond market is a fair indication of a country's financial market liquidity. A mature bond market plays an important role in stabilising the overall financial system of a country. In many developed countries, the market capitalisation of the bond market is larger than that of the stock markets. As we can see in Table 3.5, the size of the bond market in developed countries is much bigger than those of developing countries such as Malaysia, Indonesia and Thailand. Advanced markets such as Japan and Korea show a high value of local currency bonds at 8,943.8 and 606.5 of USD billion.

Nonetheless, the Malaysian corporate debt market had increased 45 times by 2004 at MYR 188 billion in 2004 from only MYR 4.1 billion in 1989. The size of Malaysian corporate bond market has reached a favourable level as it represents 37% of the country's GDP. This is among the largest in the world (Ibrahim and Wong, 2006).

Table 3.5: Size of Local Currency Bond Market

	Total size (USD billions)	**Percentage share**	
		Government	Corporate
China	527.7	62.9	37.1
Hong Kong SAR	79.6	19.8	80.2
Indonesia	52.8	87.1	12.9
Japan	8943.8	77.5	22.5
Korea	606.5	30.6	69.4
Malaysia	114.7	42.9	57.1
Singapore	78.2	56.0	44.0
Thailand	70.2	52.1	47.9

Note: Corporate data include financial institutions
Source: Asian Development Bank and Asian Bonds online as reported in Ibrahim and Wong (2006)

Interestingly, Ibrahim and Wong (2006) noted that the limited size of the bond market in Malaysia was one of the important factors that made the Asian financial crisis in 1997-1998 worse. Over -dependency of the government and other institutional investors on loans provided by financial institutions resulted in a mismatch of funding and a lack of risk diversification. Since then, the development of the bond market has been a priority of the Malaysian government.

Ibrahim and Wong (2006) laid out several key developments in the Malaysian bond market. They charted its growth from the early years. The BNM was the only party responsible for corporate bond issuance before 1993. In March 1993, the SC was given the responsibility to act as the single regulatory body to promote the development of the bond market. Rating agencies such as Rating Agency Malaysia Berhad (RAM) and the Malaysian Rating Corporation Berhad (MARC) were established in 1990 and 1995 respectively. They provide independent opinion of aspects of risk involved in investing in bonds. A fully automated system for tendering (FAST) was introduced in September 1996 and the Real-Time Gross Settlement

System (RENTAS) was launched in July 1999.[13] Furthermore, the introduction of the Islamic Interbank Money Market (IIMM) that was launched in September 2004 further enhances the development of the bond market in Malaysia.

Unfortunately, according to Ibrahim and Wong (2006), liquidity in the secondary market continues to be hampered by the shortage of paper available for trading. Small issue sizes coupled with the buy-and-hold strategy adopted by large institutional investors dominated by the government-controlled funds (such as the Employee Provident Fund and savings institutions such as the Pilgrims Fund Board) aggravate the liquidity problem of Malaysia's secondary market.

High issues of sukuk (Islamic bonds) significantly reduce the problem of liquidity in the bond market in Malaysia. In 2004, 32% of total issues were Islamic bonds. Another 17% consisted of Islamic Medium Term Notes (MTNs), asset backed bonds formed 11% of total issues, and conventional MTNs, straight bonds and convertible bonds contributed 9%, 16% and 15% respectively to the total issuance in 2004.[14]

Retail fixed-income securities, mainly bills and bonds, are also offered to households by banking institutions. The EON Bank Berhad, for example, offers the following fixed income securities to its customers.

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[13] See page 115 of Ibrahim and Wong (2006), BIS paper No 26, February 2006. Available online: http://www.bis.org/publ/bppdf/bispap26p.pdf#search=%22ibrahim%20and%20wong%2Bbnm%22. The link retrieved on 7th October 2006.

[14] Bank Negara Annual Report, 2004

Table 3.6: Types of Fixed Income Securities Offered by EON Bank

Items	Types of securities	Particulars
1	Malaysian Government Securities	• Issued by Malaysian government • Maturity periods range from 3 to 10 years • Issued at par or MYR 100.00 • Interest income is exempted from tax
2	Malaysian Treasury Bills	• Issued by Malaysian government • Period ranges from 90 days to 1 year • Issued on a discounted basis • Denominated in multiples of MYR 100,000.00
3	Bank Negara Bills	• Issued by Bank Negara Malaysia • Maturity period ranges from 30 days to 1 year • Issued on a discounted basis • Denominated in multiples of MYR 100,000.00
4	Bank Negara Negotiable Notes	• Issued by BNM based on *Bay-al Inah* contract whereby BNM undertakes to sell an asset to the successful participants on a cash basis and subsequently will buy back the same asset at a higher price which is normally at par on a credit basis.
5	Private Debt Securities	• Issued by corporate, state agency and quasi government • Maturity period ranges from 30 days to 20 years • May be issued on discounted basis or coupon bearing • All issues are rated by rating agencies as required by the relevant authority to assess the risk profile of the issuer.
6	Banker's Acceptance	• A bankers acceptance (BA) is a bill of exchange, drawn on and accepted by finance institutions on behalf of their clients, for trade financing. The tenor of financing ranges from 21 days to 200 days. • BA is a discounting instrument and interest is paid up front by deducting from the principal amount. EON Bank provides both conventional and Islamic Bankers Acceptance.

Table 3.6: Types of Fixed Income Securities Offered by EON Bank (continued)

7	Government Investment Issue	• Issued by BNM based on the *Bay-al Inah* concept whereby successful bidder would purchase assets from the government upon issuance on discounted basis. The government would then repurchase the assets on nominal value to be paid on the maturity date.
8	Islamic Acceptance Bills	• Islamic Acceptances Bills are drawn and accepted by Islamic banks and SPI pursuant to an acceptance credit facility to finance genuine trade transaction. The goods involved in the trade transaction are tangible goods and non-*haram* goods and to be used in the production of non-*haram* goods. • Islamic Acceptances Bills are issued with minimum of MYR 50, 000.00 in multiple of MYR 1, 000.00. The minimum period for security is 21 days up to a maximum of 365 days.
9	Khazanah Bonds	• Issued by Khazanah Nasional Berhad based on the *Murabahah* concept with no coupon payment.

Source: http://www.eonbank.com.my/tib/treasury-investment-products.htm. Retrieved on 13th July 2006

3.2.5 Shares

Securities Commission of Malaysia moved to broaden the capital market and enhance the regulatory framework in the system, according to its press release on annual the report on it activities in the year 2005[15]. Its major plan in the capital market had been formulated through the Capital Market Plan (CMP) which spans ten years starting from the year 2000 until the year 2010. Phase 1 covered the period of 2000-2003, which strengthen domestic capacity and developed strategic and nascent sectors. Phase 2 covered the period of 2004-2005. The main objective was to further strengthen key sectors and gradually liberalise market access. Finally, Phase 3 covers the period between the years 2006-2010. The objective is to expand and strengthen market process and infrastructure to becoming a fully developed capital market and enhance its international positioning in areas of comparative and competitive advantage. As at the end-2005, which marked the end of Phase 2 of the CMP, 99 recommendations or 65% of the 152 recommendations in the CMP had been completed, with the remaining 35% still in progress or due to be implemented in Phase 3 (2006-2010).

As at the end of 2005, the overall size of the capital market stood at MYR 1.1 trillion with the equity market valued at MYR 695 billion. The number of companies listed on the exchange increased to 1,021 accounting for a total market capitalisation of MYR 695 billion as at end-2005, compared to 963 companies with a total market capitalisation of MYR 722 billion as at end-2004. The drop in market capitalisation was mainly due to the weaker performance of the stock market in 2005 rather than on the volume traded in the market. Household with medium to high risk preferences were still investing in stocks rather than in the unit trusts. Furthermore, considerable

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[15] http://www.sc.com.my/eng/html/resources/press/pr_20060314.html. Retrieved on 13th March 2006

amount of risk involved in the investment of blue chip stocks[16] encouraged household to hold stock.

There are broad types of indices calculated in the Bursa Malaysia which reflect the extensive range of stocks offered in the market. They act as indicators to measure the performance of stocks held by individuals. One objective of fund managers is to manage funds under their authority to outperform the relevant index. Good managers are rated by their performance to outperform the index that their collections of stocks are in. The indices are as follows:

1. **Composite Index** (top hundred companies listed in Bursa Malaysia): The Kuala Lumpur Composite Index is generally accepted as the local stock market barometer. It was introduced in 1986 after it was found that there was a need for a stock market index which would serve as an accurate indicator of the performance of the Malaysian stock market and the economy. In 1995, the number of component companies was increased to 100 and will be limited to this number although the actual component companies may change from time to time.
2. **EMAS (Exchange Main Board All Share) Index:** The Kuala Lumpur Stock Exchange Main Board All Share Index is a capitalization-weighted index of all companies quoted and listed on the KLSE Main Board. The index was developed with a base value of 100 as of October 16, 1991.
3. **Industrial Index:** Index calculated based on performance of companies dealing in industrial businesses.
4. **Consumer Products Index:** Based on performance of companies producing consumer products.
5. **Industrial Products Index:** Based on performance of companies producing industrial products.

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[16] Blue chip stock can defined as the common stock of nationally known companies that have a long record of profit, growth, and dividend payment and a reputation for quality management, products, and services. The web based definition obtained from www.angelfire.com/il/fafp/glossary.html. Retrieved on 14th March 2006

6. **Construction Index:** Based on the performance of companies operating in the construction sector.
7. **Trading/Services Index:** Based on the performance of companies offering trading services such as shipping and postage.
8. **Finance Index:** Based on the performance of companies in finance sector such as banking and insurance services.
9. **Properties Index:** Index calculated based on the performance of companies operating in property dealing.
10. **Mining Index:** Based on the performance of companies dealing mining businesses such in gold and copper.
11. **Plantations Index:** Based on the performance of companies operating in plantations such in palm oil and rubber.
12. ***Syariah* Index:** The *Syariah* Index was launched in April 1999. The *Syariah* Index is a weighted-average index with its components comprising the securities of Main Board companies which have been designated as *Syariah* Approved Securities by the *Syariah* Advisory Council (SAC) of the Securities Commission (SC).
13. **Technology Index:** The Kuala Lumpur Stock Exchange (KLSE) launched a technology sector and a corresponding technology index on Monday, 15th May 2000. This is to help spread an understanding that technology stocks are not only confined to IT and internet related stocks, but include stocks of companies from a broad range of economic activities which are innovative in the development and use of technology. For example, those from the computer hardware and software, electronics and telecommunication areas which are technologically innovative and currently engaged in or committed to research and development activity
14. **Second Board Index:** Index calculated for newly listed stocks which have the potential for future growth.

15. **MESDAQ Market Index (Malaysian Exchange of Securities Dealing & Automated Quotation)**: It was launched on 6th October 1997 as a separate market mostly for technology based companies listing.

The performance of the indices in terms of points and percentages can be summarised in Table 3.7. The points are calculated, usually based on the weighted average or simple average method base, on any selected base year. For example, for the composite index, the market capitalisation of the 100 companies is compiled in an updated manner; information is obtained from the stock-broking companies online. The current aggregate market capitalisation will be compared to that of the aggregate of base market capitalisation and multiplied by hundred to reflect the value in percentage points.

***Table 3.7*:** The Performance of Indices of Bursa Malaysia at the End of Year 2004 and 2005

	End-Dec 2004	End-Aug 2005	Change (%)
Composite	907.4	913.8	0.7
EMAS	214.3	208.2	-2.8
Second board	110.9	88.4	-20.3
Mesdaq market	122.8	90.5	-26.3
Construction	171.3	145.6	-15.0
Consumer products	232.2	224.3	-3.4
Finance	7462.9	7378.8	-1.1
Industrial	1965.6	1983.0	0.9
Industrial products	85.1	78.2	-8.1
Mining	361.2	370.1	2.5
Plantation	2417.1	2571.2	6.4
Property	717.0	599.1	-16.4
Syariah	133.8	130.8	-2.2
Technology	43.1	29.5	-31.6
Trading/services	131.9	131.9	0

Source: Economic Report year 2005/2006 produced by the Ministry of Finance, reported in New Straits Time, Saturday, October, 2005.

3.2.6 Unit trusts

As at 30 June 2005, the total funds managed by fund management companies in Malaysia amounted to MYR 115.6 billion, a 1.3% increase from the end of 2004. Local unit trust funds, which stood at MYR 88.45 billion as at end of June 2005, continued to be the main source of funds under management. Other types of funds under management include the funds of charitable bodies, corporate bodies, EPF, government bodies/agencies, individuals, insurance companies and private pension funds.

As at 31 December 2005, the total funds managed by licensed fund management companies in Malaysia increased by 11.4% to MYR 127.22 billion as compared to 2004. The main source of funds under management continued to be the unit trust funds, reaching MYR 99.92 billion as at end of 2005 compared to MYR 88.13 billion as at end of 2004. This amount represented more than 78% of the total of funds under management. Other types of funds under management include funds of the charitable bodies, corporate bodies, EPF and EPF contributors, government bodies/agencies, individuals, insurance companies and private pension. Table 3.8 summarises the performance of these funds in terms of the amount they managed.

Table 3.8: Local and Foreign Funds Managed by Licensed Fund Management Companies on December 2004 and 2005

Source of Funds	Local (MYR) million)		Foreign (US million)	
	June 2005	Dec 2004	June 2005	Dec 2004
Charitable bodies	381.56	366.23	1.11	1.00
Corporate bodies	5,804.93	6,127.95	277.15	461.91
Employee Provident Fund	6,070.85	6,385.16	-	-
Government agencies/bodies	4,008.17	3,455.73	-	-
Individuals	1,597.43	1,727.76	28.69	37.65
Insurance companies	853.59	901.71	36.75	3.41
Private pension funds	1,062.34	1,056.61	1.24	0.72
Unit trust funds	88,450.79	70,757.08	161.84	184.88
Other funds	4,488.14	2,960.12	246.35	301.16
TOTAL	**112,717.82**	**93,738.35**	**753.13**	**990.73**

Source: Bursa Malaysia's website, formerly known as Securities Commission of Malaysia. Available on: http://www.sc.com.my/eng/html/resources/stats/stat_fmdec05.html. Retrieved on 18th June 2006

These overall efforts contributed to the investment management industry continuing to grow strongly with funds under management growing from MYR 114 billion in 2004 to MYR 127 billion in 2005. The NAV of unit trust funds grew by 12.7% to MYR 98.49 billion, accounting for 14.2% of market capitalisation at end of 2005. The total approved fund size of the unit trust industry also grew by 22% to 267.33 billion units in 2005.

Presented with an environment where individual savings are growing into a more prominent pool of investible assets, the investment management industry is increasingly becoming a key intermediary in the mediation of retail savings for financing economic activity. To facilitate the growth of investment management the SC worked in 2005 to further broaden the range of products and investment opportunities available for Malaysian savers and investors. Consistent with the government's objectives that were articulated in the 2004 and 2005 budget

announcements, the SC introduced new guidelines to expand the range of products to cover real estate investment trusts (REITs), exchange traded funds (ETFs) and 2005 saw several important product innovations in the local Islamic capital market, which effectively broadened the products and investor base of the Islamic capital market. Leveraging on the earlier introduced REITs guidelines, a set of Islamic REITs guidelines was released in 2005, making Malaysia the first jurisdiction in the world to issue such guidelines.

As further tangible results of the SC's efforts, the Islamic bond market witnessed several landmark issuances in 2005, including the inaugural World Bank issuance of Ringgit-denominated Islamic bonds, Cagamas issuance of the first Islamic residential mortgage-backed securities and issuance of the first floating rate *istisna'* bond.

These initiatives and overall efforts at developing and promoting the Islamic capital market have resulted in its emergence as a significant area of growth in 2005. The SC in 2005 approved 77 Islamic bonds valued at MYR 43.32 billion and representing 71.4% of total new bonds approved and Islamic bonds accounted for MYR 9.7 billion or 27.2% of the total funds raised; and *Syariah*-based unit trusts contributed 8.6% of the industry's total NAV. [17]

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[17] http://www.sc.com.my/eng/html/resources/press/pr_20060314.html. The link retrieved on 14th April 2006

3.2.7 Retirement Accounts

The biggest retirement fund is the Employee Provident Funds with assets of more than MYR 190 billion. In term of participants, all government servants and private sector employees are obliged to contribute. As for self-employed individuals, at present they are not obliged to contribute but are encouraged to do so.

Table 3.9: Top Public Sector Provident and Pension Funds in 2004 (MYR billions)

Providers	Assets
Employees Provident Fund	191.1
Pension Trust Fund	16.8
Pilgrims Fund Board	10.2
Social Security Organisation	8.6
Armed Forces Fund	4.8
TOTAL MARKET	231.4

Source: Reproduced from Economist Intelligent Unit (EIU) Online Store. Available online at: http://store.eiu.com/index.asp?layout=show_sample&product_id=280000228&country_id=MY
Sources quoted by EIU are from Bank Negara Malaysia and individual fund reports.

The Employee Provident Fund (Amendment) Act of 1996 allows EPF participants to invest some of their contributions in the capital markets via mutual funds. The government appointed 25 Malaysian financial institutions as designated fund managers to handle the investments. The investment option, which is limited to contributors below the age of 55 with savings of over MYR 50,000, allows withdrawals of a maximum 20% of any surplus over MYR 50,000 for capital-market investment. Any dividends paid are directed into the contributors' EPF savings accounts. Effective in January 2002, a new withdrawal payment scheme replaced the old annuity scheme, allowing contributors to withdraw regular payments plus dividends upon reaching the age of 55. More changes followed in 2003 as the EPF sought ways to lift its current 5% return on investment.

The EPF is an active investor in the country's infrastructure. It was the single-largest financier of the MYR 9 billion Kuala Lumpur International Airport and holds a stake in the controversial Bakun hydroelectric dam project. To enable it to finance private-sector activity, the EPF Act was liberalised in 1991 to allow the EPF to channel up to 50% of its annual investible funds (up from 30%) into non-government securities. It has also allowed investment in the Singapore and Thai stock exchanges.

The Pensions Trust Fund, which was set up by the government in 1991 as a second pension fund for private-sector employees, had resources totalling MYR 16.8 billion as of the end of 2000. The Social Security Organisation, established in 1971, provides benefits to workers through the Employment Injury Insurance Scheme and the Invalidity Pension Scheme. It had assets of MYR 8.6 billion at the end of year 2000. The Pilgrims Fund Board, also known as Tabung Haji, had assets of MYR 10.2 billion at end of year 2000. The Fund was established in 1962 to help Malaysian Muslims save for the annual pilgrimage to Islam's holy sites in Saudi Arabia and to provide other services for pilgrims.

The resources of the Armed Forces Fund came mainly from its members and returns on its investments. Established in 1972, it serves members of the armed forces, including its retirees. It had assets of MYR 4.8 billion at the end of year 2000. Other pension funds include the Malaysian Estates Staff Provident Fund and the Teachers' Provident Fund. Most of the resources of these funds are invested in medium- and long-term assets, since their liabilities are long-term.

3.2.8 Life Insurance

The insurance market continued to expand in reaching an increasingly important role in supporting economic and social development. The insurance industry of Malaysia registered a second consecutive year of double-digit growth in 2004, supported by robust growth in the life sector. During the year 2004, combined premium income for life and general business increased at a stronger pace of 17.2% (2003: 11.6%) to achieve MYR 22,038.9 million (2003: MYR 18,812.3 million). Both insurance penetration and density levels have further increased. Combined premium income as a percentage of nominal Gross National Product increased to 5.2% (2003: 5.1%), while the market penetration rate was also higher at 37.9% (2003: 36.8%), underscoring its growing importance within the economy in promoting economic activity and individual financial well-being. Total assets of insurance funds expanded by 13.1% to MYR 86, 848.5 million in 2004 (2003: MYR 76, 807 million) mainly due to the growth of the life fund assets. The fundamentals underlying profitability were also stronger, with more disciplined underwriting supporting positive results in the general sector, while further improvements in asset-liability matching were observed in the life sector. Efficiency gains also contributed to improved results.[18]

Table 3.10 presents the amount of life premium and non-life premium for Asian countries and several developed countries. This is to illustrate the differences on the amount of premiums of insurance especially of life insurance between developed and developing countries in Asia. The data is the total amount of insurance and life insurance written for the year in the relevant countries.

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[18] Information obtained from Bank Negara Malaysia. http://www.bnm.gov.my/index.php?ch=174&pg=500&ac=485. Retrieved on 3rd September 2006

Table 3.10: Life and Non-Life Insurance Premiums in 2004 (Direct premiums written, in U.S millions)

Country	Non-Life Premiums (1)	Life Premiums	Total Premiums	Percent of Total Premiums
Hong Kong	2,291	12,969	15,260	0.47
India (5)	4,330	16,919	21,249	0.66
Indonesia	1,754	1,626	3,381	0.10
Japan (5)	105,587	386,839	492,425	15.18
Malaysia (5)	2,245	4,208	6,453	0.20
Philippines	509	783	1,292	0.04
Singapore	3,237	6,459	9,696	0.30
Taiwan	9,385	33,851	43,236	1.33
Thailand	2,581	3,167	5,747	0.18
Vietnam	302	601	904	0.03
United Kingdom	105,241	189,591	294,831	9.09
United States (9)	603,018	494,818	1,097,836	33.84
France	65,811	128,813	194,624	6.00
Germany	106,261	84,535	190,797	5.88

(1) Includes accident and health insurance.
(2) Non-life insurance: July 1, 2002 - June 30, 2003.
(3) Life business expressed in net premiums.
(4) July 1, 2002 - June 30, 2003.
(5) April 1, 2003 - March 31, 2004.
(6) March 21, 2003 - March 20, 2004.
(7) Non-life insurance is gross premiums including a small amount of reinsurance premiums.
(8) Premium in local currency in TRL billions.
(9) Life premiums include an estimate of group pension premiums. Non-life insurance includes state funds.

Source: Swiss Re, *sigma*, No. 2, 2005. Also available at:
http://www.internationalinsurance.org/international/overview/?table_sort_724581=3. Retrieved on 19th April 2006

Outside the United States, the insurance industry is divided into life and non-life or general insurance rather than life/health and property/casualty. In 2004, world insurance premium volume, for both sectors combined, totalled $3.24 trillion, up 9.7 percent from $2.96 trillion in 2003, according to Swiss Re. The number of countries in the survey of world insurance premiums conducted by Swiss Re increased from 78 in 1995 to 88 in 2004. To be included, countries must have had reliable data and direct premiums of over $100 million from 1995 to 1998, over $150 million from 1999 to 2002, at least $200 million in 2003 and at least $250 million in 2004.

As for Malaysia, the level of penetration of life insurance rose marginally from 37.9% to 38.3% from 2004 to 2005. This reflects high potential for growth in the future years. According to the 2005/2006 Economic Report published by the Ministry of Finance Malaysia, new business premiums of MYR 3.6 billion in the life insurance sector were driven by strong consumer demand the attractive investment options especially in endowment plans. Investment-linked insurance new business premium reduced by 31% compared to the strong demand from the previous year. [19]On the other hand, there was strong growth for pure protection policies such as credit protection policies and medical and health insurance policies. This indicates that householders in Malaysia prefer pure insurance policies than policies that are attached to investment performance. This may due to the attitude of householders that are risk adverse. As insurance policies are taken to minimise risks, householders do not prepare to add elements of risks to their investment-linked insurance policies.

In relation to family *takaful* (Islamic insurance), the statistics compiled by the BNM indicate that the level of contribution has increased over the years. The same goes to the number of new businesses that had been recorded over the years from 2000 to 2005. More importantly, the amount of assets generated from the family *takaful* increased steadily from MYR 1,542 million in 2000 to MYR 4,918 million in 2005. This reflects growth of 71.5%, 20%, 22%, 12%, 13% and 18% respectively for the years starting in 2000. The full statistics can be seen in Table 3.11.

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[19] Data and information refers to Malaysian Economic Report 2005/2006 published by the Ministry of Finance. The report contains a comprehensive review of economic performance in various sectors of the economy including banking and financial services.
Also available on the net at: http://www.btimes.com.my/Current_News/BT/Friday/economicrep/ecnrp0506.pdf. The link retrieved on 25th April 2006

Table 3.11: Family Takaful Key Indicators from the Years 2000 until 2005

	As at end					September	September (1)
	2000	**2001**	**2002**	**2003**	**2004**	**2004**	**2005**
New Businesses							
No. of certificates (unit)	209,256	229,199	237,037	256,035	290,538	213,653	272,917
Sums participated (RM million)	12,350.7	13,990.5	14,174.8	18,330.1	36,458.1	49,835.7	31,750.4
Contributions (MYR million)	764.8	952.0	452.2	511.0	603.7	478.3	828.5
Business in Force							
No. of certificates (unit)	572,354	771,256	932,212	1,128,446	1,315,195	1,256,654	1,446,777
Sums participated (RM million)	34,167.7	48,559.0	53,625.9	63,573.8	88,711.9	106,635.2	96,126.1
Contributions (MYR million)	1,257.2	2,019.0	2,105.8	394.2	477.2	446.4	550.2
Distribution of Sums Participated in Force (%)	97.2	95.2	95.9	96.6	97.6	98.0	99.1
Ordinary family	57.0	56.8	61.9	65.2	68.2	48.0	63.3
Individual	40.2	38.4	34.0	31.4	29.4	50.0	35.8
Group	2.8	4.8	4.1	3.4	2.4	2.0	0.8
Annuity	-	-	-	...	0.1	...	0.1
Investment-linked							
Net Contribution Income (RM million)	841.3	1,219.8	663.8	762.5	794.4	388.3	497.8
Net Certificate Benefits (RM million)	78.4	132.7	178.6	201.4	281.0	198.2	264.2
Death and disability	44.2	53.1	68.8	50.9	120.3	84.3	112.6
Maturity	2.7	4.2	3.3	6.3	8.9	7.3	6.6
Surrender	21.9	63.2	93.5	76.0	117.0	83.9	110.2
Others	9.6	12.2	13.0	68.1	34.7	22.8	34.7
Assets							
Fund assets (RM million)	1,542.4	2,644.7	3,162.8	3,861.0	4,305.1	4,163.8	4,917.9
Fund assets Growth (%)	-	71.5	19.6	22.1	11.5	12.8	18.1**(2)**

Notes:

(1) 9-months ending September 2005

(2) Corresponding period growth

... Negligible

Source: http://www.bnm.gov.my/index.php?ch=174&pg=500&ac=485. Retrieved on 16th October 2006

3.3 Conclusion

Savings and wealth accumulation is vital for households for two reasons: for retirement funds and for precautionary purposes. This study concentrates on the life-cycle effect on savings and wealth accumulation. Householders are assumed to have their expected average level of consumption match their actual consumption to reduce the gap between their expected and actual consumption. Savings and the process of wealth accumulation will be the residual values of the matching process. Using various types of financial assets available in the market, householders can increase their amount of wealth according to their level of risk and return consideration characterised by each financial asset. Householders' investment allocation or how they select their range of financial assets affects the amount of wealth and the speed of achieving their financial target as each asset has different characteristics from the other. The allocation process made by householders can be explained by many factors such as their level of income, wealth and net wealth as well as other demographic and specific factors such as their level of financial literacy. This research aims to ascertain whether variations in the level of demand for different types of financial assets exist and to look for factors that cause these variations to occur.

CHAPTER 4

FINANCIAL PLANNING, FINANCIAL LITERACY AND ISLAMIC FINANCIAL PLANNING IN MALAYSIA: A SURVEY

4.1 Introduction

In the study conducted by Elmerick *et al.* (2002) that examined the use of financial planners by US households, it was revealed that 21.1% of respondents in the survey engaged in financial planning either in the form of comprehensive financial planning, credit or borrowing and investment planning. Their study further analysed the characteristics of householders engaging in financial planning using economic and socio-demographic variables.

In respect of this, the financial planning division of AICPA in 1995 conducted a study to assess the needs of clients and how they valued the service provided by certified financial planners. In the first phase of the study, the internal focus group consisting of members of AICPA's financial planning division were used to examine how clients chose financial planners and the nature of competition in the market. In the second phase, an external focus group study with 45 users from either financial planning services or CPAs were conducted.

Among other key findings of the study are the expectation of long-term relationships between clients and financial planners, the experience requirement by clients, a compensation method favoured by the client, which is on a fee basis instead of commissions, and the responsiveness of financial planners to their clients' needs. Clients also stated that they desired financial planning assistance when they entered a new phase of life such as growing older or having children and when they experienced increased of income or assets. The lack of time to handle their personal

finances also was quoted as a reason for them to appoint a personal financial planner.[20]

Both of the above surveys provided this study with the idea that financial planning services had been considered important by householders, especially in the case of the U.S. This chapter examines the reasons why householders decided to use professional services. Issues on financial planning, theoretical frameworks and the history of financial planning association will also be reviewed. As professional advice on financial planning is beneficial to improve efficiency of household portfolio diversification, we will examine various roles that have been played by financial planning associations as well as independent financial planners in household portfolio management. Furthermore, issues related to the personal financial planning industry such as the building of its theoretical framework, tools development and marketing initiatives will also be addressed in order to provide a comprehensive discussion the financial planning industry. The aim of this chapter is to link the existence and the development of the financial planning industry with household demand for financial assets in a portfolio allocation.

4.2 Financial Planning Industry and Financial Planning Association of Malaysia (FPAM)

This section provides a review on the importance of the financial planning industry to the financial markets. In addition, it provides an examination on the role of financial planning associations in providing training to prospective financial planners and encouraging financial education in Malaysia. Finally, several aspects on the association that encourage the practice of financial planning is explained.

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[20] Perception and Expectations of CPA Financial Planners", Journal of Accountancy, June 1996.

4.2.1 The Importance of Financial Planning Industry to the Capital and Financial Market in Malaysia

The personal financial planning (PFP) industry is a part of the capital market's regulatory framework and the growth of the PFP industry will shape future changes in capital market regulations. The PFP industry may enhance the governance and the ethical standards of financial and capital market as well as the training and educational programs. This is because, in the PFP industry, training and the development of financial planners are vital to ensure that planners have the ability to continue to advise their clients amidst the changes of both the financial products and the financial situations of their clients. Financial planners, thus, can be regarded as an important link between investors and the capital markets as they guide and facilitate investors in financial asset acquisition.

How the PFP activities may enhance the performance and development of segments of financial and capital markets namely banking, insurance, trust fund and social security scheme industry is to be discussed. PFP activities performed by householders contribute massive funds which are managed by the above institutions to mobilise their investments. The route to increased savings and investment in a country can begin with the involvement of individuals via personal financial planning, which in turn promotes the development of institutions in the capital market. This study closely examines how PFP induces the development of Islamic financial institutions such as Islamic Banks, *takaful* operators and fund management companies. This study also discusses the social security scheme at the end of the sub-chapter.

Islamic banks, generally, provides savings and current accounts, certificates of deposits, real property financing, investment accounts such *mudharabah* scheme and other customer services products such as buying and selling of currencies, telegraphic transfer service and so on. Their products range from safe, medium and risky types of assets.

Internet research on the central bank of Malaysia, Bank Negara Malaysia, revealed that significance numbers of banks are offering private banking facilities to their customers. The institutions are doing this to tap the market for high net-worth individuals as well as for middle income group of individuals. For example, the Bank Islam Malaysia Berhad and the Islamic compliant operations of Maybank Berhad are offering private banking services under the heading of private banking and investment services such as the management of personalised accounts. The banks also offer real estate management to its customers. However, comprehensive personal financial management services by the banks are still lacking, in particular for insurance and *takaful* products which are provided by separate institutions. This may be due to the exclusive existence of *takaful* institutions to promote their own range of products and services.

Takaful operators, on the other hand, provide Islamic type 'insurance' which may act as a risk management tool for individuals to protect themselves against loss or damage to properties, vehicles or merely for the purpose of providing their families with a sum of money upon death or permanent disability. The major difference between conventional insurance and *takaful* is the management of a contributor's money. In a conventional scheme, an insurance company operates as a different entity providing the service of risk manager, while a *takaful* operator acts as an agent managing contributor's monies in accordance with the concept of *tabarru'* (contribution, donation or offering). Another instrument used in takaful is *mudharabah*, where the *takaful* operator shares the profit of a *takaful* operation with the contributors. Contributors in this case agree to collectively donate the pooled funds to the less fortunate participant. This can be an effective tool of risk management among participants, and a profit and loss sharing agreement between participants and the *takaful* operators.

In Muslim countries, the market for *takaful* policy is large and relatively untapped. The market is large because there are basically over one billion Muslims making up 20 per cent of the world's population. In general, Muslims are sceptical towards the concept of life insurance as they consider that fate is all in the hands of Allah so that nothing can be done about the future. That is why we can see minimal involvement in insurance especially in life insurance policies in Muslim countries such the Gulf countries. The highest uptake of life insurance policies is in Malaysia with $72 spent per person in 1994. Compared this with over $1,000 spent per person on life insurance in most other countries, whose national income per capita may be similar or lower than that of some Muslim countries. The per capita expenditure on life insurance in the UK was $1,281 where GDP is around $16,400 per capita in 2004[21]. In contrast, in Kuwait the per capita spend was $14 while its GDP per capita was around $17,600. Though it is true that everything is in the hands of Allah and Muslims have to believe in *Qada'* and *Qadar*, they are not abstained from helping each other out in the case of misfortune which is central to the establishment of *takaful*.

As for Islamic unit trusts, their establishment has encouraged the participation of middle-income individuals in investment. The advantage of unit trusts is that they are an affordable investment tool. Investors indirectly invest in real properties, equities and commodities through different mixes and matches of unit trust funds via the ownership of units. Except for the special institutions established to offer various types of unit trusts products to cater different needs of investors, fund units are usually promoted by *takaful* institutions and banking institutions. Furthermore, trust fund management is in the hands of professional financial managers.

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[21] Statistics in this paragraph obtained from www.failaka.com retrieved on 23rd May 2006

In a speech delivered in her role as the Director of Market Policy and Development Division of Securities Commission of Malaysia, Dr Nik Ramlah Nik Mahmood[22], said the key success factors for Islamic funds are the availability of *Syariah*-compliant stocks, investments and indices, Islamic brokers and financial planners, experts in fund management and a general awareness of the trust unit concept and a strong regulatory framework and guidelines. Thus, to further develop the Islamic capital market in Malaysia, we have to make sure that all above prerequisites are well catered for. Without the contribution from financial planners, the delivery of financial products to investors will be less efficient.

The establishment of Islamic banks all over the world since 1960s and of a *takaful* company in Sudan in 1979 and a *Syariah*-compliant ASM Mara Unit Trust in Malaysia in 1968 has given mass choices for individuals to build their financial plans. With the establishment of these institutions described above, Muslims have been able to increase their participation in Islamic compliant portfolios and thus increase their wealth in a manner pleasing to Allah S.W.T.

Social security schemes are not private corporations like other institutions discussed in this chapter. The development of this independent institution of social security is largely due to the massive financial contributions provided by employees. In Malaysia and Singapore, contributors can actively control their contributions to these provident funds. There are specific accounts which exist for them to invest in approved unit trusts as well as managing their risks. This is particularly true for personal medical aspects. The minimal control of contributors in their contributions limits the role of any social security scheme in the portfolio allocations of householders. But the case does not rule out the fact that the existence of social

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[22] The speech had been delivered during the seminar on Islamic Private Securities: Exploring New Opportunities in the Capital Market. The full text is available on the net at: http://www.sc.com.my/eng/html/resources/speech/2001/sp20010924.pdf (the link retrieved on 31 July 2006).

security schemes have contributed to the non-discretionary savings among households.

It is worth mentioning that the management of social security schemes in the form of employee's provident funds in Malaysia are currently managed using conventional principles. The justification of the management not to manage the fund using the Islamic principles is due to lack of Islamic financial products for the funds to be well diversified. Furthermore, the lack of short and middle-term investment avenues hinders proper management of the liquid assets of the fund.

The existence of stable social security schemes may affect the development of financial planning industry both in positive and negative way. Stable schemes are beneficial for resource mobilization from individuals to institutions which have more expertise to manage the fund to generate good returns on investment. At the same time, stable and efficient schemes might also discourage individuals to save and invest having ideas in mind that they have enough savings and cover in the event of a health crisis. Total dependence on social schemes is unwise, since the scheme is open to the risk of mismanagement and financial crisis which is remote from the control of participants.

In a nutshell, personal financial planning activities, if intensified, may contribute to the development of industries in the capital market. Measures should be taken to encourage individuals to participate in personal financial management and to restructure related institutions to be able to manage and invest funds under their control for the purpose of increasing the national level of savings and investments.

4.2.2 Reasons for the Growth of Financial Planning Practice in Malaysia

Increasing the percentage of individuals interested in engaging in personal financial planning activities is due to several factors. The perception of the public changes in time to favour services from independent financial planners which have been seen as providing comprehensive financial advice in contrast to specific advice from different sets of other providers in financial matters.

Previously, the public at large had to rely on various professionals in relation to their financial affairs. In the U.S, Gentile (1998) reported that there were five most frequently used sources of financial advice. From 7000 consumers involved in the survey, 55% relied on advice from accountants, 51% on stockbrokers, 44% on advice from financial planners and finally 6% on financial advice from bankers. Note that the percentages are not mutually exclusive as an individual may consult with more than one financial advisor at a time. However, the trend evolves to a greater demand for financial planner as a sole provider of financial advice due to the need for comprehensive financial planning.

Researchers might be able to forecast the development of financial planning in Malaysia by looking at several factors to which the development of personal financial planning is accruing. Under the heading of economic, socio-economic and regulatory factors, we will discuss vital factors generating the development of the personal financial planning industry in Malaysia.

The current economic setting of the steady growth of the financial services industry triggers the industrial development. The number of companies listed on the Kuala Lumpur Stock Exchange has increased from 732 in 1998 to 932 in 2006. Unit trust counters also multiplying to 243 funds with more than 10 million accounts. There is also a parallel blooming of Islamic equities and debt securities such as in the issuance of USD 600 Million Malaysian Global *Sukuk* in 2002. Due to such development,

investors are expected to be more actively trade in the capital market thus creating a need for advice from financial planners. Apart from offering greater products suitable to the vast number of individuals participating in the financial market, the development of this market also introduces complexity in the financial instruments on offer. The public, hence, is in even greater need for financial advice from professionals than ever. Islamic financial products offer *Syariah* compliant savings and investment vehicles to Malaysian public, the majority of whom are Muslims. However, different concepts and terms are used in Islamic financial products call for professional assistance, since these terms are rarely understood by the average individual, perhaps due to the fact that these are new concept of operation in contrast to well established conventional banking and finance.

The growth of a middle class group in developing countries also gives an impact to the development of the personal financial planning industry. Warschauer (2002) reported that middle class individuals are able to achieve their goal of wealth accumulation through proper financial planning in contrast to wealthy individuals who have usually inherited significant wealth from their ancestors. He justifies his argument by reasoning that financial planning association around the world, being members of CFP international board, are constituted by countries having a significant percentage of middle class people. 11 out of 17 member countries are Organisation of Economic Co-operation and Development (OECD)[23] countries that are relatively advanced economically. The remaining are developing countries having a sizable middle-income class such as Malaysia, Hong Kong, Singapore, Brazil and South Africa. The FPAM of Malaysia in line with this argument has launched a campaign exhorting greater participation from middle income class individuals in personal financial planning. They have emphasized the fact that public individuals do not have to be wealthy to be involved in financial planning. Middle income class groups are

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[23] The list of OECD countries can be viewed at http://en.wikipedia.org/wiki/Organisation_for_Economic_Co-operation_and_Development. The website was visited on 1 November 2006 for the current lists of OECD countries with the founding members and joining members.

likely to become major clients for certified financial planners for they are usually concerned with financial issues such as cash flow management, debt reduction advice, income tax planning, investment planning in unit trusts and shares as well as advice on retirement planning.

With their diverse attitudes to financial planning, the middle income group, are the biggest potential group for growth in the personal financial planning industry. Financial literacy and awareness on issues of personal financial planning, however, are very important before this group of individuals can be the core base group clients for financial planners. The industry may not be able to multiply in size, if its dependency on wealthy clients with high assets and net income is not eliminated. Wealthy individuals form only a minimum percentage of population as compared to middle income groups who represent about 50% of the population given the satisfactory levels of income distribution in Malaysia.

Changes in the social environment as a result of economic forces can be termed as the socio-economic factor. The society has been changing enormously due to such economic and financial related reasons such as increasing life expectances, the adoption of hectic modern lifestyles and increasing competition in the work place. Life expectancy is likely to increase in future years due to the advanced nature of health services and the improved quality of life. In developing countries, the elderly population is expected to increase by 80% by the year 2025[24], making the activity of personal financial planning vital in order for this group of individuals to secure a retirement income. The rapid pace of modern life also limits the individual's time which can be spent in managing personal finance. With the availability of advice from professional financial advisor equipped with state of the art financial tools, individuals are more confident to plan their finances. With the time limitation, the tendency is high that they will either seek advice from independent financial planners

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[24] The speech delivered by Dr Nik Ramlah of Securities Commission of Malaysia available online: http://www.sc.com.my/eng/html/resources/speech/2001/sp20010924.pdf. retrieved on 23rd July 2006

or do no planning at all. Ignoring personal financial planning and deferring financial decisions will result in sub-optimal financial situations that will costs individuals in their later years.

A competitive labour market, on the other hand, imposes pressures on individuals to maintain their skill levels to cater for changes in the latest trend and market demand. Less job security and the trend for temporary job assignment put pressures on individuals to work hard to maintain their level of competency in their specialisation. These situations induce individuals to engage in constant training, development and re-education programmes even though they are costly and time consuming. Given that, less time is available for individuals to plan their personal finances themselves.

Modern parents are also usually concerned with the future education costs of their children. This is because of changes in government policy on college funding where university scholarships are no longer available. University students are now facing huge costs to repay their education loans. To avoid their children facing debt before even securing a job, parents feel obliged to provide funding for their education. Unit trust funds, special saving accounts and unit-linked insurance are typical products available for parents to choose from. But due to the size of the problem, and need for long-term planning to raise such huge amounts of money, individuals now usually need advice from professionals to manage this specific issue.

Regulatory issues pertaining to the financial market and retirement accounts will also change the way individuals manage their personal finances. The self-contributing Employee Provident Fund of Malaysia (EPF) is now slowly changing their model of operation to draw in more contributors. From time to time, contributors are now entitled to participate in investment decision in the investment section in their accounts. Contributors are also given several choices on the types of income they would like to receive during their retirement; whether to purchase an annuity or receive a lump sum payment.

The changing scenario of the EPF from a government managed provident fund to self-managed accounts was done to be in line with the trend for self-managed retirement accounts which exist in the western countries. The U.S and UK governments are now educating their public to be more financially literate in order to mange their own retirement savings. Due to the massive risks involved in retirement schemes, governments around the world are now obligating their former role of providing pensions for retirees by sponsoring the development of self-managed retirement accounts such as Individual Retirement Accounts (IRAs) and employer-sponsored retirement plan such as 401(k), 403(b), or 457 plans.[25]

Individuals anxious to safeguard their retirement income are very likely to consult professionals to advise them. Concerns for retirement planning are diverse ranging from the need for steady income to maintaining their normal standard of living. This is difficult to accomplish in the current world of high taxation, increased prices of necessities, the changing trends in the financial markets as well as changes in government regulations. Retired individuals are also likely to have to continue to pay the costs of their children's education and mortgages debts. For these reasons, proper planning by the young is important to secure a debt-free and financially adequate retirement income.

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[25] The 401(k) plan is a type of employer-sponsored retirement plan that allows worker to save for retirement with the benefit of withholding of tax until withdrawal. The most common option made by the participant is to self-manage the account. Usually, it is the participants who actively manage the account. Participants can select to invest in ranges of investment such as mutual funds that contain selections of stocks, bonds and money market instruments. In the less common trustee-directed 401(k) plans, the employer appoints trustees who decide how the plan's assets will be invested. Other retirement plans are Individual Retirement Accounts that allow participants to hold cash and cash equivalents to be invested in most types of securities. The account is also tax exempted until withdrawn. There are many types of IRA which may be either employer provided plans and self-provided plans. Other types of retirement plans are 403(b) and 457 plans. A 403(b) plan is a tax advantaged savings plan available for public education organisations, some non-profit employers and self-employed ministers in the U.S. It has a tax treatment extremely similar to a 401(k) plan. 457 plans, on the other hand are types of tax advantaged defined contribution retirement plan that is available for government and certain non-government employers in the U.S. Additional information can be obtained from http://en.wikipedia.org/wiki/401(k). The link visited on 1 November 2006 for the information briefed in this footnote.

Researchers have identified the trend towards higher risk investments by individual investors. This phenomenon increases the demand for professional financial planners. Kennickell *et al.* (2000), for example reported that the volume of safe assets decreased from 33% of investors' portfolios in 1966 to 16% in 1998. The way that insurance was viewed as a method for hedging risks has also changed as variable life insurance products grew from zero in 1966 to 26% of all life insurance in 2000. Conventional savings-based insurance also reduced from 77% of all life insurance to 58% in 2000. The trend towards risky investment undertakings might reflect increased risk toleration due to a higher level of financial literacy among investors. They are now beginning to become involved in investment activities *per se* rather than simply saving for retirement or for precautionary purposes. By engaging in investing activities, they are showing a willingness to take higher risks for investment gains. When personal financial planning was regarded as a mean for managing personal risk, the role of independent financial planners was vital, especially in the case of individuals who have risky investments. Moreover, financial planners are trained professionals usually having the luxury of latest financial software, so that they can suggest the best financial advice to manage the risks involved.

The downturn of the financial markets around the world from the major regional crisis in Asia in 1997 and Brazil in 1998 to the economic slowdown of the Japanese and American economies in late 1990s and 2000s introduced vulnerability to individuals who had participated in the financial markets. One of the ways to manage exposure to risks in financial markets is through investment diversification, which is at the heart of the financial advice in investment planning offered by financial planners.

Finally, the establishment of the CFP Board as a formal institution acting as the standard-setting body in the industry give impact to public perceptions on the subject. Individuals now are more confident to engage in personal financial planning as they may place their trust in certified financial planners who have been trained and educated with the relevant skills. Formal designation for independent financial planners has also increased public confidence due to the liability coverage. Financial planners are now fully responsible for their financial advice in drafting an individual's financial plan. Financial planners are now covered by liability insurance schemes, in which the premium rate depends on the type of advice offered and the numbers of years of experience that they have. Being able to manage various types of risks helps financial planners to engage individuals who thus are confident enough to seek their financial advice. In other words, individuals are attracted to hiring financial planners now that the latter owe a degree of duty of care and responsibility.

The establishment of the Financial Planning Association of Malaysia (FPAM) in 1999 as a membership organization of CFP council enabled the introduction of the relatively new practice to the Malaysian public. FPAM educated the public and potential customers via websites and articles about aspects of personal finance such as retirement and credit management. It also has been an umbrella for a handful of certified financial planning corporations which aim to provide financial planning services specifically to individuals.

4.2.3 Introduction to FPAM

The personal Financial Planning Association of Malaysia (FPAM) was established in Malaysia on 13th of December 1999. The organization is relatively new to the capital market industry and has promoted the Certified Financial Planner (CFP) certification process.

FPAM's main target groups are the Malaysian public and the small business enterprises that are in need of strategic and systematic financial planning. Public investors and small business enterprise owners are less likely to hire accountants and other specialists to assist them in making business decision. Thus, the CFP provides an advisory service on financial matters in order to achieve minimal risk exposure as well as generating higher rate of returns for their clients. To cater for the needs for comprehensive personal financial planning, the association has boosted itself with an abundance of resources from individuals from such diverse areas of financial services as insurance, unit trusts, banking, legal services, stockbroking, accounting and asset management (FPAM, 2003). The reason for its establishment as cited was to educate Malaysian public on the importance of personal financial planning.

FPAM is an affiliate of the Financial Planning Standard Board (FPSB) which is now currently a division of the International CFP council. International CFP council's main concern is to promote the licensing of a certified financial planner mark around the world. The council itself was established in 1990. FPSB was created specially to realize the goal of internalizing the certification program and promoting professionalism in the industry. There are currently 20 financial planning associations in countries around the world as affiliates to the FPSB. These organizations are non-profit motive bodies, whose main aims are to produce certified financial planners as well as promoting standards in financial planning practice. Financial planning associations exist in various parts of world including developed countries, European countries as well in developing countries. In Asian countries particularly, personal

financial planning associations exist in India, Singapore, Hong Kong and Malaysia. Other affiliates are the United States, Canada, Switzerland, the United Kingdom and several other European countries such as Belgium, Germany and France.

The personal financial planning industry is a self-regulated industry, so that the CFP Board and FPAM are responsible for setting standards and offering practice guidance for independent financial planners to adhere to. Recommendations on good practice and ethical requirements are also formulated by these organizations.

Citing from the organization's website[26], the objectives of FPAM are as follows:

- To establish a professional self-regulatory organization to benefit the public by fostering professional standards in financial planning;
- To introduce the concepts of financial planning to practitioners and other related professionals in the financial services industry;
- To develop practice standards for the profession in Malaysia;
- To establish open dialogues with financial services entities and encourage them to adopt ethics, education and practice standards for their representatives;
- To develop strategic partnerships with consumer groups to promote the importance of financial planning;
- To promote and assist academia in establishing a knowledge base for financial planning in Malaysia; and
- To strengthen cooperation with the Certified Financial Planner Board of Standards in Denver, Colorado and to work with the International CFP Council to develop cooperative policies that promotes CFP certification as the globally recognised standard of excellence for financial planners.

[26] www.fpam.org retrieved on 12th March 2004

Certification programs offered by FPAM are subjected to several requirements. Candidates have to go through four certification requirements. They are education, examination, experience, and ethics. Modules for examination currently stand at six modules with a distinctive feature for the Malaysian environment. One specific module had been introduced to prepare future certificate holders to be able to advise on Islamic personal financial management.

There are various roles to be played by financial planning associations that help householders to structure their portfolios. Apart from providing the certification program and educating the public on the awareness of financial literacy and personal financial planning, they are also responsible for preparing standards and ethical guidelines. They also act as watchdog to monitor conformance of personal financial planners under their license to the standards and regulations in force. Personal financial planning associations in order to increase participation from the public may engage in marketing and promotion initiatives. The role played by personal financial planning associations is examined in turn.

The aim of financial planning associations is to offer professional, well-trained independent financial planners whose trustworthiness in the eyes of the public is supported by a well-defined certification program. The CFP Board, since 1990 has designed requirements for a certification mark to be passed to individuals upon satisfying four major requirements. These requirements are meeting educational requirements, passing certification requirements (examination), adhering to the *Code of Ethics and Professional Responsibility and Financial Planning Practice Standards* and finally meeting the level of experience needed in the industry. Warschauer (2002) offer readers a comprehensive review of the certification program offered by the CFP Board. Various requirements for certification including education, examination, experience and ethical requirement are discussed in detail.

The education requirement may be satisfied by prospective certificate holders choosing from three options offered by the Board. The education requirement was updated with effect from 1st July 2002, in the case of Malaysia. This requirement forms the examination requirement of the CFP Board. Individuals with appropriate qualifications are entitled to partial exemptions as are those eligible for a challenge status do not have to sit for the examination. The three options offered are the CFP certification course, the partial exemption on modules and the CFP challenge option. For all three options, prospective certificate holders are required to enrol with registered education providers and those candidates who needed to sit for the examination have to have valid membership in order to qualify.

As for the Option A, namely the CFP certification course, it involves six distinctive modules. Certification course module will be summarised in the table 4.1.

***Table 4.1*: Option A of CFP™ Certification Course Offered by FPAM**

Module 1	Foundation in Financial Planning
Module 2	Risk Management and Insurance Planning
Module 3	Tax Planning
Module 4	Investment Planning
Module 5	Retirement Planning and Estate Planning
Module 6	Financial Plan Construction and Professional Responsibilities

Source: www.fpam.org. Retrieved on 12th March 2004

In addition, FPAM launched the Practice Module 1- Islamic Financial Planning course in October 2003. This course complements the CFP certification course, and equips certificants to work with conventional and Islamic financial planning clients.

For Option B – Partial exemption on modules, individuals with the stipulated educational background or members of approved bodies are entitled to apply for partial exemptions from the board. Details are shown on the association's website.

Warschauer (2002) makes a point that the most disputed criteria for meeting the educational requirement is the challenge status option, which is option 3. This option enables individuals wanting to be the holder of a certified financial planners' certificate to file for challenge status. The board accommodates quite a diverse range of education backgrounds for this reason. Included are individuals with accounting professional status such as MIA, CPA (M), CPA (Aust.), AICPA, CA, ACCA, ICMA and AIA. Company secretaries such as ICSA and Fellows of MACS are also accommodated. On top of this, Chartered Financial Consultants, Chartered Financial Analysts and PhDs in Business Administration, Accounting or Economics as well as Master's degree holders in Business Administration, Finance, Economics and Accounting are also entitled to file for challenge status. However, individuals entitled to challenge status still have to undertake Module 6 in constructing financial plans for clients as a practical training in constructing comprehensive financial planning when they become certified financial planners. In addition, they have to learn about professional responsibility that covers ethical and standard practice provided by the Board.

With the wide opportunities for entitled individuals to apply for challenge status, Warschauer (2002) commented that the efforts taken by the board threaten the viability of registered programs i.e. the certification course of Option 1 described above. He argues that no other profession allows a substantial portion of its examinees to avoid the educational component as is the current practice of the Board. The board, on the other hand argued that such considerations were made to encourage various professionals related to financial planning industry to enrol as financial planners. In a related development, FPAM of Malaysia lobbied Malaysia's Securities Commission (SEC) to proposed amendments to the Securities Industry Act to regulate who can be called a financial planner. The Board proposed that only certified members of CFP under the Board should be called a certified financial planner. The amendments are expected to be in the near future.

On top of the education and examination requirement, certificants have to possess experience related to the industry. For example, all certification course candidate as well as candidate entitled to partial exemptions and the challenge status option are required beforehand to gain experience in one or more fields related to financial planning such as insurance, mutual funds, securities, asset management, accounting, estate planning, banking, taxation, trusts, retirement planning and financial planning.

Continuous education programmes must also be attended from time to time. The Board employs a points system in order to track the ongoing education to be sought by the certificate holders. Certified financial planners must in total accumulate 30 points in two years for them to secure their future membership status. Topics included for ongoing education range from investment strategies, tax updates, Islamic financial aspects and standards and ethical issues.

Finally, like other members of professional bodies, CFP certificate holders have to undergo continuous training that carry points for the purpose of renewal requirements. In this respect, certification by the board of those engaged in the financial planning industry will produce possible benefits as well as attracting various costs to the planners. There are various benefits that flow from the certification. They include enhancement of public acceptance, increased numbers of long-term clients and the marketing benefits. The downside of certification is the increasing liability attached to financial planners once they are thought as professionals. It is argued, however, that the benefit from certification is greater than the potential liability to be faced in the future (Warschauer, 2002).

Ethical and standards were also introduced in the financial planning industry in order to promote professionalism so that the public can be protected. By adhering to relevant ethical requirements and practice standards, certified financial planners are obliged to act objectively and professionally. In offering advice to their clients, financial planners must device plans which are not only sound from a theoretical and

technical point of view but conform with the industry's norms as far as principles, rules and ethics are concerned.

There are three main institutions involved in developing an ethical requirement and conforming to standard practices in the industry. The responsibility as the main standard setter for the industry is held by the CFP Board. Since the Board was the first institution to introduce the concept of personal financial planning in the financial market, it is responsible for promoting adequate standards of practice to protect the public. The Board has also been the main provider of independent financial planners since its establishment in 1985.

The CFP Board recently produced its ethics and practice standards for certified financial planners to abide by when engaging in consultancy. Apart from the CFP, the major player, initiatives promoted by other personal financial planning service providers such as certified financial accountants and certified insurance providers can also significantly enhance the development of ethics and practice standards for the industry. Furthermore, close communication between the CFP Board and other comparable international bodies such as International Standardisation of Organisation (ISO) will enhance and accelerate the adoption of higher standards.

4.3 Financial Planners and Household Portfolio Allocation

As indicated, the role of financial planners is to provide advice to their clients on how to establish financial goals as well as on financial products that suit the plan. In order to operate as a professional party that offers advice on financial plans, financial planners have to work within the established framework that governs their practice. Thus, frameworks and models in which financial planning operates is discussed. In addition, the roles of financial planners during the process of portfolio allocation are discussed, in particular on the acquisition of financial assets.

4.3.1 Theoretical Framework and Models for Financial Planning

The discussion on the lack of a theoretical foundation in the financial planning industry was made by Cohen (1988), Warschauer (2002) and Black *et al.* (2002). Cohen (1988) specifically addressed the issue of the needs and prospects of research in personal financial planning.

In determining whether it is better for individuals to seek advice from independent financial planners, we cannot ignore the theoretical hindsight of Black *et al.* (2002). In their study, they addressed the gap in academic and theoretical research. They proposed models for personal financial planning delivery by suggesting two models: a generalist model and planner-delivery model. They used Modern Portfolio Theory (MPT), which is relevant to most areas in finance as the base for their delivery model. Their main concern is to theoretically analyse whether the practice of hiring independent financial planners referred to, as 'the planner model' in their research is superior to the 'generalist' model. They discussed various advantages and disadvantages of the planner model. They argued that the planner model is superior because of its advantage: improved diversification of clients' portfolios and improved economies of scale.

Economies of scale may be promoted in a planner model due to the fact that the costs of holding and monitoring portfolios may be reduced with the assistance from the financial planners. Costs of research in searching for suitable products to be included in portfolios are also minimised, owing to the intensive training and specialisation of financial planners. By offering explanations on the prevailing reasons for hiring personal financial planners as well as exposing readers to the danger of using the planner model in managing personal finance, one might be aware of caveats surrounding such planner model. Black *et al.* (2002) also cautioned readers on the possible drawbacks of the model: the threat of under-diversification, agency problem

rose between planners and clients and over-dependency of clients to their financial planners.

Elmerick *et al.* (2002) considered the point made in Black *et al.* (2000) and conducted a survey on the use of financial planners by US households. They discovered that consumption economies of scale really do exist if households choose to manage their financial affairs via a personal financial planner. Economies of scale is achieved when one party is specialising in doing what it does best thus reducing costs of operations. They found that householders who hire financial planners can reduce the cost of searching for the right products to be included in their portfolios and the costs of monitoring them.

Warschauer (2002) also pointed out several cases which may act as challenges to the current state of the profession. Players in the industry fail to agree on vital issues such as the need for standardised practice for ratio analysis in measuring clients' risk. He drew attention to lack of fundamental theoretic guidance, which calls for the development of a theoretical model. He illustrated the case using the issue of disagreements among practitioners on using a debt ratio it had been established by Mason and Griffith (1988) as a powerful tool to calculate risk of corporations and individuals. To make the application of debt ratios handy to practitioners, Geringer *et al.* (1996) suggested six ratios related to solvency and credit standing. Unfortunately, research materials regarding the issue are not yet incorporated in the theoretical basis in the personal finance books and for structuring financial plans for clients until now.

Another example to illustrate the lack of an adequate theoretical basis is the measurement of liquid resources needed by individuals. Currently, CFP Board materials recommend individuals to hold six months of expenses as liquid resources in their financial plan. The simplistic approach without proper backing of any theoretical research on this particular subject is an indication of the need for decision-model research (Warschauer, 2002). Warschauer also commented that despite rapid

development in personal financial planning industry in the past 40 years, limited theoretical research limits the ability of financial planners to improve the quality of their advice to their clients.

A possible way out of the problem of the lack of a theoretical foundation is to start developing one from the point of personal risk management. Various activities in personal financial planning, ranging from an evaluation of the current status of financial wellbeing to managing risks through insurance and investment activities. Bodie (2002) and Shiller (2003), in an attempt to do that, provided a theoretical explanation and practical suggestions on the subject of personal risk management.

In developing a theoretical framework for personal financial management, Bodie (2002) proposed the paradigm of life-cycle finance. In his opinion, the measure of wealth for individuals should be to maximise the lifetime consumption of goods and leisure. Planning time-frame also should be in many periods, thus resulting in stocks and other equities to be as risky in the long-term as in the short-term. This is different to the conventional finance approach to measurement of wealth maximisation and single period time frame, which denotes that equities are safe in the long term.

Based on this idea, Bodie (2002) suggested a new breed of retail investment products such as structured standard of living contracts, which takes into accounts the effect of inflation in 'annuity-like' contracts, and targeted accounts such as tuition-linked certificates of deposit. These products are contrasted with the use of mutual funds as a vehicle to increase the diversification of retail products in conventional finance. Bodie's view on life-cycle based financial planning may be further studied and taken into consideration by financial planners in constructing financial plans for their clients. He argued that by including life-cycle financial products in their portfolios, householders are able to manage their risks and secure their desired level of returns taking into account their age characteristics along with other necessary considerations.

Shiller (2003) pointed out that personal financial planning is basically an exercise in personal risk management. In line with this, efforts should rightly be taken to address major risks faced by individuals. He argued that current technology and practice are spending a considerable amount of resources in addressing minor rather than more important risks. He is of the opinion that the major risks that individuals should take into account are the following risks:

1) Diminishing human capital during the individual's working period;
2) The reduction in neighbourhood which in turn adversely affects the value of their houses;
3) Changing in the economic and societal values which will make the individuals' retirement difficult and
4) Stock market downturn that will reduce or sweep away savings for retirement.

Shiller (2003) also pointed out that only this last type of risk has been addressed in research and to some degree dealt with in the practice of financial planning. Practically, none of other risks have been taken into consideration. It is thus important for the industry to recognise the other risks that if not considered could adversely affect individuals' quality of lives. This calls for the development of a structured and proper theoretical framework so that individuals can understand the magnitude of the problem they face.

At the application level, financial planners rely strongly on the software available in the market in order to construct financial plans for their clients. The software may have been developed in-house or purchased as a freestanding product as offered in the market. Although there are significant models as tools for financial advice, the theoretical model for financial planning construction is still limited.

In relation to specific models to be applied to client's financial plan, Puelz (1991) suggested a goal-programming model that can be used to help financial planners to allocate household portfolio. His model takes into account the subjective variables of clients as well as objective variables such as the cost of products and the rate of returns offered. Subjective variables, according to him, are equally important in the process of household's portfolio allocation. Goals in his model may be generally divided into two: consumption goals which concern liquidity and portfolio goals which concern for the consideration of returns. He used the analytical hierarchy process (AHP) to maximise multiple clients' objectives in order to emerge with an efficient portfolio allocation plan.

In addition to approaches discussed, the American Institute of CPAs (AICPA) proposed an approach for managing their clients' personal finance called the 'activity approach'. The recommendation was formally made in the issuance of Statement of Position no.82-1, *Accounting and Financial Reporting for Personal Financial Statements.*[27] In the conventional method, lists of a client's assets, liabilities, income and taxable income are prepared independent of each other. This approach attempted to match expenses and tax payable related to a specific category of assets. By including all income and expenses as well as tax payable related to the specific activity, the client will be able to understand his current financial state. For example, if the life style activity shows a negative balance after considering all expenses, the client is alerted to the situation and may find a solution to the problem. The SOP has clearly illustrated the activities worksheet for planning and followed it with recommendations for the preparation of projected financial statements that explain both financial positions of the assets and liabilities and changes in net worth.

Mason and Griffin (1988), on the other hand suggested on the use of accounting ratios when creating clients' financial plan. They stated five factors than can be observed when analysing the ratios. The factors include the current stage of the

[27] Discussed in Mason and Griffin (1988)

clients' life-cycle, his family status, economic status, economic environment and his objectives and preferences.

Although various financial planning models have been proposed in order to improve efficiency in the portfolio allocation process such as those by Khaksari and Grieves (1989), Puelz and Puelz (1991), Puelz (1991) and Mason and Griffin (1988), much more is needed in order to improve currently available practical models that have a strong theoretical foundation.

4.3.2 The Roles of Financial Planners in Household Portfolio Allocation

The main role of financial planners is to design financial plan that suits that the needs of their clients. The advice can be in the form of comprehensive financial planning that deals with the whole range of issues in financial planning or 'slice' financial planning that focuses on certain segment of financial planning, for example risk management and investment planning. Basically, services offered are in line with the content analysis of personal financial planning. There are 101 content areas suggested in the CFP Board's current guide on CFP Certification[28]. Major headings are:

a) general principles of financial planning;
b) insurance planning and risk management;
c) employee benefits planning;
d) investment planning;
e) income tax planning;
f) retirement planning; and
g) estate planning.

[28] As reported in CFP Practitioner Survey 1999.

The above topics listed were based on the 1999 Job Analysis Study. The list is also used for the CFP® Certification Examination which indicates the topic coverage areas required to fulfil the pre-certification program and continuous education credit by the CFP Board. Based on Table 4.2 obtained from the first annual CFP Practitioner Survey in 1999, the percentages of CFP in the U.S provide relevant types of service are as follows:

Table 4.2: Numbers of Certified Financial Planners Practicing in Various Areas of Financial Planning

Types of Business	Numbers of CFP Practitioners
Financial Planning	56
Securities	16
Accounting	9
Tax Preparation	5
Insurance	5
Banking	2
All Other	3
Not Specified	4

Source: CFP Practitioner Survey in 1999, CFP Board. Available online: www.cfp.net/media/survey.asp?id=14. Accessed on 26th October 2004

Although the content and coverage of personal financial planning information is comprehensive, clients may also choose to hire personal financial planner at some critical points in their lives such as getting married, the birth of a child, making a major purchase decision and upon reaching retirement. This phenomenon is called 'slice' financial planning which is event-induced. On the other hand, clients may engage in contracts with their financial planners to manage the whole state of their financial plans. This is called 'comprehensive' financial planning.

Elmerick *et al.* (2002) empirically analysed the scope of financial planning services acquired from financial planners. They divided their observation into three scenarios where clients seek advice from independent financial planners:

1) Credit and borrowing purposes,

2) Saving and investing purposes and

3) Comprehensive financial plans.

They designed their survey to incorporate data on demographic and socio-economic factors such as age, education, race, marriage status, employment status and location. They also asked about the nature of services usually needed by clients. Other financial data from respondents was asked: income, net worth, amount of financial assets held and debt to income ratio. They found that, in general, there are 21.8 million US householders (21.2% of the population) using the services of financial planners. Most of householders had sought advice on saving and investing (11.8 million), followed by comprehensive advice (7.2 million), and 2.8 million specialised advices on credit and borrowing.

The process of financial planning outlined by the CFP Board consists of five stages. Unlike the perception of the general public financial planning is not simply about matching good financial products to suit clients' needs, but actually more comprehensive Financial planners, upon understanding their clients' goal, will conduct a research on products which not only involves product selection but the whole clients' financial situation. In brief, the lists of financial planning processes that have to be executed by financial planners with their clients are as follows:

a) Analyse needs and objective of clients;

b) Match objectives with appropriate products and services;

c) Implement the financial plan;

d) Provide the ongoing review on the plan;

e) Realise modifications to the plan.

This is essential for financial planners to take account of their prospective clients' age and wealth financial situation as well as their level of basic financial planning knowledge. This is to ensure that planners are able to commit to a long-term relationship with their clients while trying to ensure that their business can enjoy long-term success.

There are several issues to be dealt with when financial planners are preparing to evaluate a client. For example, whether the client will cooperate during the process and commit enough time to the process. The evaluation process can be done via an initial interview with the client. The level of financial planning knowledge possessed by clients is also important as it is desirable that client can understand the extent of what the planner is offering at every stage of the process. The financial skills regarded as important is budgeting, cash and cash flow management and debt management. Information on the whole picture of financial planning activities are also important. Interviews can be conducted to identify the level of understanding of clients on the above issues. They also must be briefed on the nature range of fees that they are subject to during the process of personal financial planning.

In practice, the process described above will be executed through a series of interviews with clients during the information gathering stage and re-evaluation of planning stage. In the course of suggesting appropriate products to clients, comprehensive research has to be done taking into account rates of return and levels of risk suitable to the client's profile. As for the actual construction of the plan, the use of software can be useful. There is a wide range of software available in the market as stand-alone products if the financial planners operate on small scale. The software executes the planning by introducing strategies and amounts to be set aside for each planning activity such as education funding and insurance coverage. Data sharing between each activity have to be made available in order to minimize data input time.

Although individuals hiring CFP rely on their financial planners to make sensible financial decision, they still have to evaluate the advice given by their planners. Clients have to understand the recommendations made and monitor their action continuously in order to avoid fraud. Various ways may be used to track actions and performance of the CFP. One way is to track returns by looking at the reports provided by the CFP. Any report should include the 'real' rate of return, i.e. the return after paying all advisors' fees and commissions. Some reports also include the real rate of return earned by investments that are similar to client's position. This is called a benchmark return. Having this benchmark helps clients compare their returns with the returns that other investors are getting.

Clients also have to read their account statements. These statements show the value of clients' net worth and the value of their investments. Clients may track how their investments are performing and what they are costing them. A monthly accounting report of the total gross commissions earned on a client's account is also regularly provided by a good CFP. This is part of a regular set of reports that every broker and financial planner receives from his or her firm and there is no law or regulation to prevent the adviser from sharing this report with a client.

Besides this, clients may also consult various organizations in order to select a good CFP. The National Association of Personal Financial Advisors (NAPFA) and the Certified Financial Planner (CFP) Board of Standards are two institutions providing vital information on how to select good financial planners. NAPFA's brochure 'Working with a Financial Adviser' provides criteria to consider when shopping for a financial adviser, along with other details about what a client can expect from the client-adviser relationship. The CFP Board of Standards publishes 'Your Rights as a Financial Planning Client', which describes the kind of treatment you deserve from your financial planner.

4.4 Financial Literacy and Financial Education in Malaysia

Literacy, in general has been defined by many scholars in various aspects and disciplines. In its pure definition, literacy is defined as an individual's ability to read and write. Hartley (1990) suggests literacy as a relative concept, where we should be aiming for active literacy, rather than functional literacy. Functional literacy is the ability to accomplish simple reading and writing tasks, while active literacy involves integration of listening, speaking, reading, writing and critical thinking as well as numeric skills.

Mason and Wilson (2000), attempted to conceptualise the term so that it can be used in further studies. Their framework on financial literacy indicates that to be financially literate, one must have financial awareness. Financial awareness, on the other hand, is individual's understanding of financial terms such as balance sheet, budget and depreciation. They also lamented that the term literacy appears to be borrowed when a problem is in need of a solution. Financial literacy, thought to be lacking among the majority of consumers in the UK, has contributed to the problem of increasing personal bankruptcy and steep increases in personal debts in recent years. The amount of personal debt of UK householders according to the Bank of England stood at more than 1 trillion pounds in the year 2006[29].

To combat the problems arising from the lack of financial literacy, many organisations have been set up to promote financial literacy among individuals. These include the Financial Literacy Centre, University of Warwick, and the National Endowment for Financial Education (USA), the Financial Literacy Center (USA) and programmes such as the Start Right Coalition for Financial Literacy (Canada) and the Jump Start Coalition for Personal Financial Literacy (USA). In the UK, the Money

[29] http://www.creditaction.org.uk/debtstats.htm retrieved on 2nd August 2006.

Management Council is involved in a number of projects aimed at raising the financial literacy of consumers.

In Malaysia, Bank Negara Malaysia (BNM) launched educational programmes on financial literacy called 'Bank Negara Malaysia Link'. The link provides information, advice and services for the public on Bank Negara and other financial issues. BNM also launched a special booklet training school children to budget their pocket money by launching its "Buku Wang Saku" (Pocket Money Book) and 'Buku Perancangan dan Penyata Kewangan Keluarga' (Family Financial Statement Book) for the year 2006.[30] At the corporate level, Citibank, a foreign bank operating in Malaysia, became the first corporate organisation to educate the public on financial literacy. 100,000 copies of its book that entitled 'The Adventures of Agent Penny"', a comic on good money management were distributed to school children all over the country. In addition, BNM also recently launched an organisation under its wing called Credit Counselling and Debt Management Agency to give advice to householders who are having problems with their debt. With the increasing incidence of personal bankruptcy and default, BNM took the initiative to offer the advice on to tackle the problem by opening a branch in each state in Malaysia. [31]

Ameriks *et al.* (2002), in their study revealed a strong relationship between financial planning and wealth accumulation. Their survey data suggest that individuals with a low propensity to plan are unable to monitor their spending and unlikely to be able to accumulate wealth. Due to the significant relation between the propensity to plan and wealth accumulation, their study calls for policy makers to initiate a savings educational program in order to build planning skills.

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[30] Information on the programme available at: http://www.duitsaku.com/. Retrieved on 2nd August 2006

[31] The link to the Credit Counseling and Debt Management Agency: http://www.akpk.org.my. Retrieved on 14th December 2006

According to Braunstein and Welch (2002), there are considerable resources that have been devoted to financial literacy education, with a wide range of organisations providing training to householders. These organisations include banks, consumer and community groups, employers, and government agencies. Braunstein and Welch (2002) also provided a comprehensive review on various aspects of financial literacy including numerous factors leading to the need for financial literacy, evaluation of training initiatives on various topics and challenges on future progress of financial literacy programs. Among programmes analysed by them are financial training, homebuyer counselling, savings initiatives, workplace and general training. In a survey on general training programs in the high schools, the general public felt that favourable long-term effect would be seen with increased exposure to financial information and increased asset accumulation among young individuals when they reach adulthood.

Public awareness on the need for financial planning in Malaysia is still low compared to advanced nations. In Malaysia, the earliest stage when individuals are exposed to financial education is perhaps when they are students at the undergraduate level and studying accounting or business administration and finance. Students majoring in other subjects not related to business and finance are left with no financial education until they enter the workplace. Indirect inclusion of financial education in subjects such as mathematics and in other subjects at primary and secondary school levels are almost non-existent. Basic topics in financial education may include budgeting, credit management, cheque book balancing and investment principles. These topics have been taught in 29 states in the U.S from 1957 (Bernheim *et al.* 1997). To make up for the lack of financial awareness of individuals in the early stage of their lives, financial education should be provided in the workplace.

Apart from this, the trend of shifting financial decisions from employers to employees in employee benefits schemes increases the need for financial education. There is a close proximity between employers and the financial management of their employees, albeit an indirect one. Large amount of time spent in the workplace should foster a long-term relationship between the two.

There are various incentives for employers to provide financial education in the workplace. Garman (1999) provided evidence that the costs of reduced employee productivity caused by poor personal financial behaviour are substantial. Findings in Garman *et al.* (1999) revealed that as many as 91% of employees who participated in employer-sponsored personal financial planning workshops agreed that they received relevant information that they need. More importantly, 75% of participants reported that they made better financial decision after attending the workshop.

Traham and Gitman (2003) explored the opportunity for marketing personal financial services to corporate markets, namely to the employees of corporations. Their study sought to gain insight on various issues in financial planning using the data from employees from selected Fortune 500 companies. They found that the prospect of marketing financial planning in these companies was significant in the case of senior managers who represented 67% of total respondents. Their study can be treated as a starting point for personal financial planners to broaden their market which are currently limited to individual clients.

FPAM, in the case of Malaysia, measures are now being taken to encourage employers to provide financial planning training to their employees. FPAM is now targeting its corporate members which consist of big companies to do that. Several programmes were launched encouraging education program in the workplace, and guidelines on training provision by are available on its website.

The internet may also be used to educate the public on the subject of financial awareness. Yunich (2003) wrote about various ways the internet could help in

disseminating information about personal financial planning. Resources that are available in the internet range from products on offer for personal financial planning construction, the technical assistance needed and research publications on investment management which are available on investment management companies' websites.

In a nutshell, financial literacy contributes to increased awareness in financial management and it should also help individuals learn where best to go for more detailed information as their competence increases.

4.5 *Syariah* Literacy and Islamic Personal Financial Planning

The *Syariah* Advisory Council (SAC) was established in 1996 under the authority of the Securities Commission. The duty of the council is to advise the Security Commission on Islamic capital market operations, standardise and harmonise the application of *Syariah* principles and concept, review *Syariah* compatibility with other conventional instruments and new Islamic Instruments and the most important function, endorse the *halal* or permitted counters in its list of *Syariah* approved securities (Ali, 2003). The members of the board comprise of Muslim scholars who are experts in Islamic *Syariah* principles.

To facilitate Muslim investors' participation in acquiring halal financial assets, the council will revise and publish the halal securities every six months. By keeping the information on halal counters on such a regular basis, Muslim investors can be confident that they are adhering to Islamic S*yariah* requirements while investing. Table 4.3 lists securities approved by the *Syariah* council as at 20th April 2006.

Table 4.3: Securities Approved by *Syariah* Advisory Council Published as at 20th April 2006

Main Board/Second Board/ MESDAQ	Approved Security	Total security	Percentage of approved security
Consumer goods	129	140	92
Industrial goods	289	305	95
Mining	1	1	100
Construction	59	59	100
Trade/services	168	206	82
Property	82	102	80
Plantation	38	45	84
Technology	94	98	96
Infrastructure	7	9	78
Finance	4	52	8
Hotel	None	5	None
Closed-end fund	None	2	None

Source: http://www.sc.com.my/eng/html/icm/sas/syariahapr2006.pdf. Information was retrieved from the Securities Commission's website on the 18th July 2006.

In order to compile a list of *halal* counters, Syariah scholars agreed that securities that fall in categories listed below must to be excluded.

a) Operations based on *riba*' (interest) involving such financial institutions such commercial and merchant banks and finance companies;
b) Operations involve gambling activities;
c) Activities involving the manufacturing or sale of *haram* (forbidden in Syariah's point of view) products such as pork, liquor and non-slaughtered meat; and
d) Operations in the presence of *gharar* (uncertainty) elements such as conventional insurance companies.

Furthermore, if companies are involved in both permitted and non-permitted activities, the following criteria to be used:

e) The core activities must be those conforming to the *Syariah* guidelines. *Haram* elements must be very small compared to the *haram* activities;

f) The public perception of the company must be good or accepted as companies dealing in lawful Islamic activities; and

g) The core activities must be important and beneficial from an Islamic point of view.

In addition to the general outline on core activities, the *Syariah* scholars also agreed on the threshold of non-permitted activities that may be allowed for a security to be granted *Syariah* adherence status. A 5% threshold of non-permitted activity can be tolerated when haram elements (activities not allowed by Syariah) are inseparable from the operation of the business. This 5% threshold applies to activities related to riba' from conventional financial institutions such as banks and insurance operators, gambling, alcohol and pork. A 10% threshold, however, can be allowed in the case of activities considered as *'umum balwa'* or activities that involve the general public which they would usually find very difficult to avoid in the context of modern business operations. The activities include income generated from fixed deposits received from conventional banking institutions and income received from the tobacco business. An even more lenient threshold of 25% can be allowed income generated *Syariah* unlawful from activities that are regarded as highly of important for the development of society. Such activities are called *"maslahah"*. Among activities that fall into this category are hotel operations and share brokerage because these activities are needed in order to mobilise resources in the economy. As for the hotel operation, it is feared that hotels will be involved in selling alcohol and other unlawful activities. But at the same time, the hotel trade is vital for the use of the general public in general. A high percentage threshold, thus, will be allowed for income generated by the sector.

It is to be noted that SAC approval includes ordinary shares, warrants and transferable subscription rights (TSRs). Loan stocks and bonds are not included unless they are issued in accordance with the Islamic principles. Other *Syariah* issues dealt with by the SAC are on the revision of the *halal* status of securities from *halal* (allowable) to *non-halal* and vice versa.[32]

The bottom point is that the establishment of SAC has been able to guide Muslim investors in choosing *halal* investments. Before, Muslim investors were either reluctant to deal in stocks or had great difficulties in looking for the *halal* investment. SAC however had particularly responsible for the increasing Muslim investor's participation in the equity markets. Muslim investors are hence urged to keep up-to-date with current changes in the list of approved securities, as well as the Islamic scholars' opinions on certain investment modes. This ensures that investment ventures and financial planning processes as a whole are executed in accordance with the Islamic principles.

Dar (2004) lamented the scarcity of research on the estimation of demand for Islamic financial services except on banks' selection criteria. One of the main topics regarding Islamic banking selection criteria is the *Syariah's* consideration of customers. Metawa and Almossawi (1998) studied the banking behaviour of the customers of two Islamic commercial banks operating in Bahrain. They found that adherence to Islamic Syariah was the main motivating factors for Muslims customers to demand Islamic financial services. In contrast, Erol and El-Bdour (1989) found that religious motivation was not a main reason why Jordanians selected Islamic banks. Naser *et al.* (1999) reported that 70 percent of Jordanian Muslim respondents

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[32] Further discussions can be found in Imad Ali (2003), in a paper presented in Islamic Wealth Creation Seminar, University of Durham, 2003.

to their study declared that adherence to Islamic *Syariah* was important to them in selecting Islamic financial services.

Based on a study conducted on 45 corporate users of Islamic banking conducted by Ahmad and Haron (2002), it was found that the majority of respondents considered religious and other factors such as service delivery, location, reputation, and cost/benefit to be important when they selected a bank. This study, however, concentrates more on household demand for financial assets as its respondents largely consist of corporate users who are more concerned with the return on their investments. Furthermore, many year have lapsed since Ahmad and Haron's 2002 study. Rapid growth in the Islamic financial services industry of approximately 15 percent per year, which amounts to nearly 50% over three years, means that Islamic financial products are much more freely available for Muslim investors.

The final motivation for comprehensive Islamic financial planning is the rapid development of Islamic financial institutions. It is only recently that Muslim investors have been able draft their financial plan in accordance with Syariah principles. They had to wait until Malaysian Islamic capital market had become broader and deeper. In the 1980s and early 1990s, although Muslims were already aware of the *Syariah* requirement of investing in halal products, Islamic financial planning was not viable as only limited financial assets were available. In addition, Islamic financial institutions are now catering in vital areas of financial planning.[33] Islamic services currently provide various products and services in areas such as risk management planning, investment planning, and estate management planning. With four[34] currently operating takaful institutions and a growing number of Islamic financial products in the capital and money market as well as the ever-increasing financial

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[33] Major areas in financial planning are risk management, employee benefits planning, investment planning, income tax planning, retirement planning and estate planning

[34] The four operators are Takaful Nasional, Takaful Malaysia, Takaful Ikhlas and MNI Takaful

services offered by the Islamic financial institutions, it is trouble-free to engage in Islamic financial planning.

The Islamic financial institutions consist of Islamic Banks, *takaful* (Islamic insurance) operators and fund management companies. Islamic banks generally provide savings and current accounts, certificates of deposits, real property financing, investment accounts such *mudharabah* (Profit and Loss) schemes and other customer service products such as the buying and selling of currencies, telegraphic transfer services and so on.

Takaful operators, on the other hand, provide Islamic type risk management tools which can be utilised by household in allocating their portfolio. The major difference between conventional insurance and *takaful* is the management of contributors' monies. In a conventional scheme, an insurance company operates as a different entity providing the service of risk manager, while a *takaful* operator acts as an agent managing contributors' monies in accordance with the concept of tabarru' (contribution, donation or offering). *Takaful* operators may also agree to use *Mudharabah* contracts and share profits or losses with contributors. Contributors in this case agree collectively to donate the pooled funds to the less fortunate participants. This can be an effective tool of risk management enabling profit and loss sharing agreements between participants and the *takaful* operators.

As for Islamic unit trusts, their establishment has encouraged the participation of middle-income individuals to invest given the advantage of unit trusts being affordable. Investors indirectly invest in real properties, equities and commodities through a mix and match of unit trust funds via their ownership of units. Valuable research on the performance, overview and legal framework of Islamic Unit Trust in Malaysia has been carried out Ali (2003).

The establishment of the first Islamic banks in 1984 via the creation of Bank Islam Malaysia Berhad (BIMB), and *takaful* in 1984 via Takaful Malaysia Berhad, a subsidiary of BIMB and Islamic Unit Trust in 1993 via, incorporation of Tabung Ittikal Arab Malaysian as the first unit trust using *mudharabah* principle, has given mass choices for individuals to build their financial plans. With the establishment of the various institutions described above, Muslims have been able to increase their participation in building Islamic compliant portfolios hence increasing their level of wealth. Table 4.4 provides readers with information on Islamic financial institutions and conventional institutions that operate within an Islamic window.

Table 4.4: Islamic Financial Institutions and Conventional Institutions Operating Islamic Windows System

	Panel A: Islamic Financial Institutions
1	Adil Islamic Growth Fund (innosabah Securities Sdn. Bhd.), Labuan
2	Arab Malaysian Merchant Bank Berhad, Kuala Lumpur
3	Bank Bumiputra Malaysia Berhad, Kuala Lumpur
4	Bank Islam Malaysia Berhad, Kuala Lumpur
5	Bank Kerjasama Rakyat Malaysia Berhad, KL
6	Dallah Al-Baraka (Malaysia) Holding Sdn Bhd
7	Lembaga Urusan dan Tabung Haji (Fund), KL
8	Malayan Banking Berhad (Maybank), KL
9	Multi Purpose Bank Berhad, KL
10	United Malayan Banking Corporation Berhad, KL
11	Bank Muamalat Berhad, Malaysia
12	Securities Commission
13	Labuan Offshore Financial Services Authority (LOFSA)
14	Islamic Banking & Takaful Dept, Bank Negara Malaysia
	Panel B: Conventional institutions operating Islamic windows system
	Commercial banks
1	Affin Bank Berhad
2	Alliance Bank Berhad
3	Arab-Malaysian Bank Berhad
4	Bank Utama (Malaysia) Berhad
5	Citibank Berhad
6	EON Bank Berhad
7	Hong Leong Bank Berhad
8	HSBC Bank (M) Berhad
9	Malayan Banking Berhad
10	OCBC Bank (M) Berhad
11	Public Bank Berhad
12	RHB Bank Berhad
13	Southern Bank Berhad
14	Standard Chartered Bank Malaysia Berhad

Table 4.4: Islamic Financial Institutions and Conventional Institutions Operating Islamic Windows System (continued)

	Finance Houses
1	Alliance Finance Berhad
2	Arab-Malaysian Finance Berhad
3	Asia Commercial Finance Berhad
4	EON Finance Berhad
5	Hong Leong Finance Berhad
6	Kewangan Bersatu Berhad
7	Mayban Finance Berhad
8	MBF Finance Berhad
9	Public Finance Berhad
10	United Merchant Finance Berhad
	Merchant Banks
1	Alliance Merchant Finance Berhad
2	Arab-Malaysian Merchant Bank Berhad
3	Aseambankers Malaysia Berhad
4	Malaysian International Merchant Bank Berhad
5	Affin Merchant Berhad
	Discount Houses
1	Abrar Discounts Berhad
2	Affin Discount Berhad
3	Amanah Short Deposits Berhad
4	BBMB Discount House Berhad
5	KAF Discounts Berhad
6	Malaysia Discount Berhad
7	Mayban Discount Berhad

Source: www.failaka.com/research.php. Retrieved on 23rd May 2005

The Islamic financial institutions listed above offer various products to householders to choose from in the course of managing their portfolio. They can make available savings and deposits facilities and facilities to finance the acquisition of real and financial assets using the *Syariah* compliant instruments such as *murabahah, mudharabah* and diminishing *musyarakah* concept.

Demand for financial assets, stocks and unit trusts' demand is ever increasing according to the publication compiled by Failaka International Inc, a Kuwaiti-American company that was established in 1996 in Chicago to serve the growing needs of Islamic compliant investors'. The organisation claimed to be the first company to monitor and publish performance data on Islamic equity funds. The data had been gathered by Harvard University's Islamic Financial Information Program (HIFIP). The lists of current Islamic equity providers as at 13th February 2006 are

shown in Appendix 3. From the Appendix we can observe large numbers of providers are based in Malaysia. This shows that the depth of provision of Islamic compliant unit trusts in Malaysia is high.

The Financial Planning Association of Malaysia (FPAM) launched FPAM Practice Module 1- Islamic Financial Planning Course in 2005. The objective of FPAM in introducing the Module was to provide insights into crucial aspects of Islamic financial planning. To encourage its members to sit for the module, 20 Certification Examination (CE) points are awarded upon the passing the examination.

With the existence of comprehensive types of Islamic financial assets being offered in the Malaysian market as listed above, householders have a diversity of choices in the course of working out their financial portfolio. However, large numbers of Islamic financial products will not ensure that Malaysians public take up the opportunity to use these products to structure their portfolio as asset allocation is more than just an understanding of the product selection process. For that matter, this research may enlighten readers on the level of involvement of Malaysians in Islamic financial asset acquisition and the level of their engagement in financial planning, Islamic financial planning included.

4.6 Conclusion

With the various measures taken by the government and the financial planning associations, further growth of the financial planning and Islamic financial planning industry is expected. With proper planning, householders will be more informed in making the investment and other financial decisions that directly affect their lives. The growth of the financial planning industry will also affect directly the type and amount of financial assets being supplied in the market. Healthy development of financial planning boards to introduce practical standards and professional guidance as discussed in the chapter will enhance the publics' acceptance of the services these financial planners have to offer. It is expected that growth in the financial planning industry will multiply the growth of other financial services such as unit trusts and insurance and private banking.

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction

This chapter focuses on the research design and methodology of the study. Firstly, theoretical underpinnings of the research and the theoretical framework are discussed followed by the hypothesis development for the study on household's asset demand. The proposed model as well as the measurement of relevant variables is presented next in the chapter. Discussions on population and the sampling related issues are also explained and justified as is the justification of the instrumentation used in the research. Finally, the chapter offers the methodology for the interviews with the financial planners.

5.2 Theoretical underpinnings

The model for the life-cycle effect of asset accumulation and allocation introduced by Modigliani and Brumberg (1954) suggested that the propensity to consume and the propensity to save are different at various stages of individuals' lives. Individuals usually have a life-cycle income pattern that is inversely U-shaped: earnings are modest in the early working life but grow until retirement age after which income declines. Assuming income follows this described manner, financial assets holding may also be predicted to behave according to the same pattern.

The life-cycle hypothesis predicts that consumption and saving behaviour change significantly with income, wealth, age, marital status and other socio-economic and demographic conditions during various stages of the individual's life (Jan Tin, 2000). This is in line with the General Theory of Keynes which states that the marginal

propensity to save is determined by sets of objective and subjective factors. Objective factors include income and rates of returns while subjective factors being demographic and socio-economic factors of which householders belong to.

Poterba and Samwick (1997) found that different characteristics of financial assets by nature will attract different patterns of life-cycles compared to real asset holdings. Furthermore, unique characteristics of various types of financial assets will likely result in different levels of demand for each type of financial assets along the life cycle. Thus, a study to examine the effect for the life cycle on different types of financial assets needs to be conducted to prove the applicability of their findings in other economies.

If the demand for Islamic financial assets is to be considered, other factors such as household preferences to acquire Islamic financial assets or conventional financial assets must be specified. Household levels of *Syariah* literacy will also be relevant in such studies. On the other hand, other factors explaining the variation in the demand for financial assets can be added. Ameriks *et al.* (2002) revealed a strong relationship between financial planning and wealth accumulation. Their survey data suggested that individuals with a low propensity to plan are unable to monitor their spending and are not likely to be able to accumulate wealth. In addition, Ioannide (1992) examined on the effect of professional involvement from financial planners in his study on household portfolio allocation. Thus an examination on the demand for financial assets in relation to householders' involvement with financial planners and their ability to plan is desirable due to the minimum amount of literature available.

In their 2002 research Ameriks *et. al.* discussed a survey on the general training programs in the high schools in the U.S. In the survey, the American public expressed the opinion feels that favourable long-term effects could be anticipated with increased exposure to financial information and increased asset accumulation among young individuals when they reach adulthood. Financial literacy would increase awareness

of financial management and wealth accumulation process, thus an examination on the relationship between household levels of financial literacy and the demand for various types of financial assets is worthwhile.

In consideration of the literature in the studies on financial asset demand, we formulated factors affecting this demand for financial assets by the way of regression analysis. We first identified the sets of factors related to the demand for financial assets and than ascertained whether these factors had any significant relationship with the demand.

The variable of interest, the dependent variable in this case, is the value of financial assets held by householders. These are the savings accounts, unit trusts and shares. The variation in the level of demand for financial assets is explained by the analysis on the sets of independent variables, which are income, wealth, net wealth, age, gender, marital status, race, educational background, job sector, respondent's risk preferences, respondent's engagement with certified financial planners, respondent's preference for Islamic and conventional financial assets, the level of respondent's *Syariah* literacy, the level of respondent's financial exposure and the respondent's propensity to plan their financial activities.

5.3 Theoretical Framework and Hypotheses Development

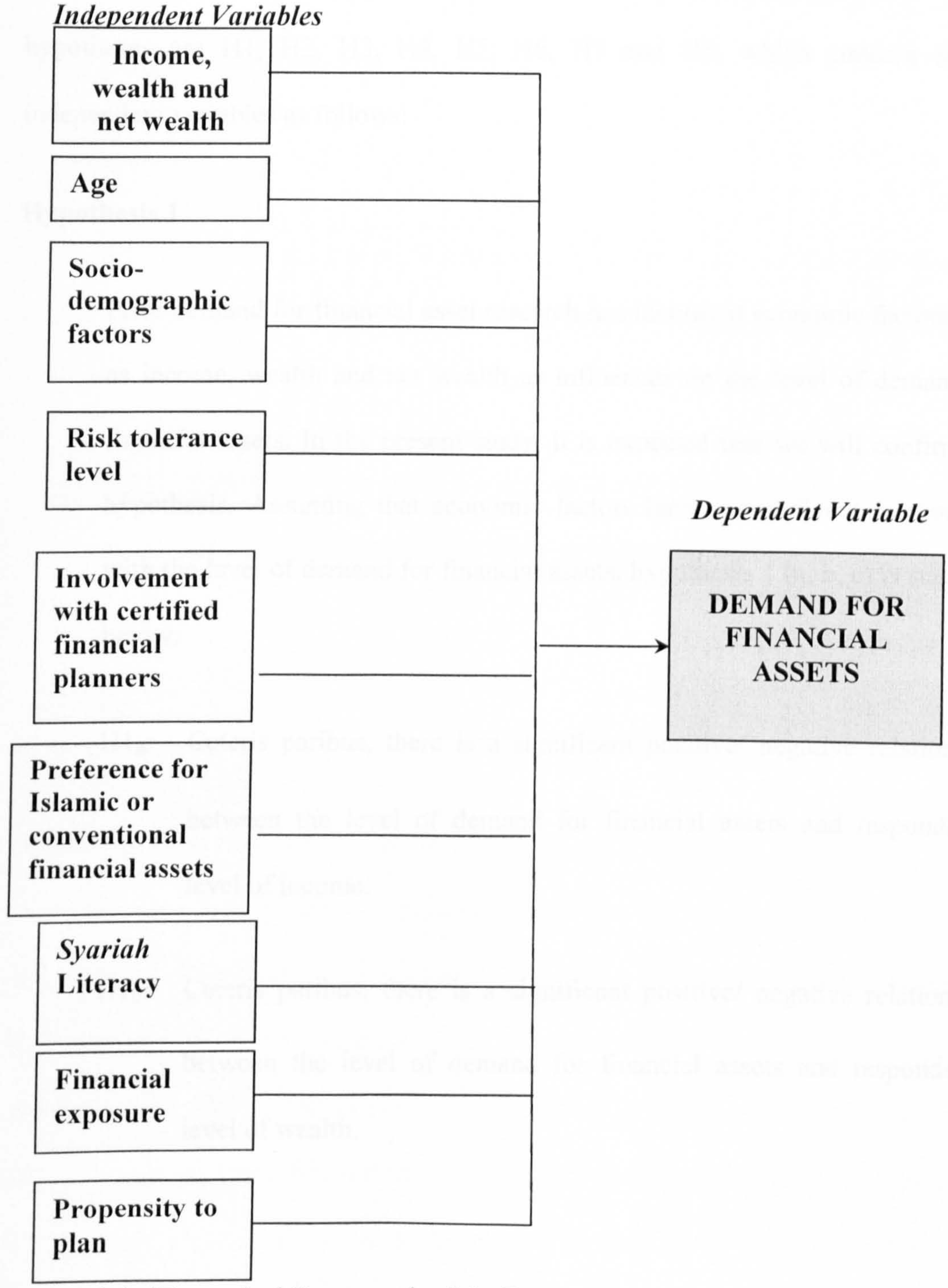

Figure 3.1: Theoretical Framework of the Research

Eight hypotheses were developed in the context of the demand for financial assets in relation to the identified aim and objectives and the research question. These hypotheses are H1, H2, H3, H4, H5, H6, H7 and H8, which concern all the independent variables as follows:

Hypothesis 1

Prior demand for financial asset research has identified economic factors such as income, wealth and net wealth as influences on the level of demand for financial assets. In the present study, it is expected that we will confirm the hypothesis. Assuming that economic factors have a significant relationship with the level of demand for financial assets, hypothesis 1 (a, b, c) is stated as below:

$H1_a$: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' level of income.

$H1_b$: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' level of wealth.

$H1_c$: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' level of net wealth.

Hypothesis 2

To ascertain whether the life-cycle effect exists for every type of financial assets as originally suggested in Modigliani and Brumberg (1954), hypothesis 2 is stated as below:

H2: Ceteris paribus, there is a significant relationship between the level of demand for financial assets and respondents' age.

Hypothesis 3

Regarding socio-economic variables, a number of studies such as Jan Tin's (2000) study included factors like age, number of children, education level, marital status, sex, and race as demographic variables to be tested as factors to influence the level of asset demand. Hall and Mishkin (1982), Zeldes (1989), and Lusardi (1996) are among others who tested demographic variables to affect wealth allocation and demand for money and financial assets. Considering the number of studies including demographic variables to influence the level of financial assets demand, including the hindsight of Keynes (1936), socio-demographic variables are included as predictors

to the level of financial assets demand. Assuming that identified socio-demographic variables do have a relationship with the demand for financial assets, hypothesis 3 (a,b,c,d and e) is stated as below:

$H3_a$: Ceteris paribus, there is a significant relationship between the level of demand for financial assets and respondents' gender.

$H3_b$: Ceteris paribus, there is a significant relationship between the level of demand for financial assets and respondents' marital status.

$H3_c$: Ceteris paribus, there is a significant relationship between the level of demand for financial assets and respondents' race.

$H3_d$: Ceteris paribus, there is a significant relationship between the level of demand for financial assets and respondents' level of education.

$H3_e$: Ceteris paribus, there is a significant relationship between the level of demand for financial assets and respondents' job sector.

Hypothesis 4

According to Sharpe (1964), individuals' levels of risk tolerance and preference will affect their pattern of demand for money and assets. Applying the concept of risk tolerance to our study of demand for financial assets, we examined whether risk tolerance levels affect the demand for certain types of financial assets. Hypothesis 4 relates to the level of demand for financial assets and respondents' risk tolerance level was tested as follows:

H4: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' risk tolerance level.

Hypothesis 5

Following the example of Ioannide (1992) who examined on the effect of professional involvement from financial planners on household portfolio allocation, we tested whether respondents' involvement with financial planners affects their level of demand for financial assets. Hypothesis 5 thus was tested as follows:

H5: Ceteris paribus, there is a significant relationship between the level of demand for financial assets and respondents' involvement with certified financial planners.

Hypothesis 6

Following our intention to include the analysis on demand for financial assets to take into account Islamic financial product preferences and levels of *Syariah* literacy, hypothesis 6 (a and b) has tested as follows:

$H6_a$: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' preference for Islamic or conventional financial assets.

$H6_b$: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' *Syariah* literacy.

Hypothesis 7

Due to the importance of the knowledge of financial management, this study tested whether respondents' exposure to financial issues affects their level of demand for financial assets. Hypothesis 7 was as follows:

H7: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' exposure to financial issues.

Hypothesis 8

Ameriks *et al.* (2002) revealed a strong relationship between financial planning and wealth accumulation. Their survey data suggested that individuals with a low propensity to plan are unable to monitor their spending and not likely to be able to accumulate wealth. Following their study, we chose to test whether householders' propensity to plan affect their level of demand for financial assets. Hypothesis 8 was tested thus:

H8: Ceteris paribus, there is a significant positive/ negative relationship between the level of demand for financial assets and respondents' propensity to plan.

5.4 Methodological Framework

The study employs regression analysis as a method to establish the relationship between various variables contributing to the demand for financial assets. Variables explaining the variation in the demand for financial assets are called independent variables. Due to several independent variables being used in our model, the model is called multiple regression analysis. The term of multiple regressions had first been introduced by Pearson (1908)[35]. The general purpose of multiple regressions is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable.

There are two types of information that can be obtained by performing the regression analysis. One is the ability of the regression model to explain the joint significance of all variables and second is the relative predictive importance of each variable. The two qualities of information that can be explained by the regression model attract researchers to perform regression analysis in order, quantitatively to, examine their research interest. In this study, the interest is to explain the variation of the level of demand for financial assets looking at a set of forecasting variables and to study the relative importance of each factor in relation to other factors which would be obtained by comparing the beta weights.

In this study, in order to explain variation of the demand for financial assets, we regressed the observed numerical value of demand for each financial asset to a constant and various independent variables. Once the relationship between dependent and independent variables had been established, the model was run to see whether and how these measures relate to the level of demand for financial assets. For example, as age is one of the regressors or predictors in our model, we expected to

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[35] As noted in Sekaran (2003). Research Methods for Business: A Skill Building Approach, 4th Edition, John Wiley and Sons, Inc. New York.

learn whether age is a better predictor of the level of demand for financial assets in relation to other independent variables in the regression equation. Readers may also learn about the entire significance of a set of variables in the model explaining the proportion of the variance in a dependent variable by looking at the R-squared value.

It could be observed, however, that the set of independent variables might not be perfectly explaining the actual case. As regression analysis can only establish that a set of variables explains the proportion of the variance or variation in the dependent variable, some of the values unexplained by the model might be recorded in the error term. This is called the residual value. It is produced when a regression analysis is performed. Multiple regressions are usually estimated by using the ordinary least squares (OLS) method that takes into account these errors or residuals which result from running the regression equation. The goal of regression procedures is to fit a straight line through the points which had been plotted using the actual observation. The "*modus operandi*" of the regression analysis is to minimize the squared deviations of the observed points from the imaginary line of best fit.

For researchers to be able to use OLS as a method of estimation, various requirements have to be met. They are a linearity relationship among variables, normality of distribution of the error term, absence of any multicollinearity[36] problem between independent variables and homoscedascity or equal variance of the error term. Furthermore, the regression model must be correctly specified using suitable types of variables as well as the correct use of power level of the variable. For example, if the model is specified as a function of a variable with a squared value, merely including the variable without the power term will accrue to the problem of model misspecification. If the above observation had been met, then the use of OLS as a

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[36] This is a common problem in a multiple regression analysis. Multicollinearity is a situation where a relationship between independent variables is observed. For example, if there is thought to be relationships between income and education level, the two variables are considered to contribute to collinearity problem.

method of estimation can be used. However, if the above observations cannot be met, a multiple regressions model may still be estimated using the generalised least squares (GLS) method. In our case, all relevant tests will be performed: for example, performing correlation matrix analysis to detect multicollinearity problem, examination of error terms to observe the normality and homoscedascity requirements and so on.

Estimating relationships using regression analysis will result in a more objective evaluation of a causal relationship as compared to the orthodox method of listing factors likely to affect a specified occurrence. Subjective judgment is substantially eliminated when researchers quantify every descriptive factor into numbers before regression analysis is conducted. On the other hand, to run a regression model, a large amount of data is required for the model to be useful. Regression models with few data are not likely to be enough to explain the true case of a population. They lack of power of inference for the results to be applied to the whole population.

An empirical limitation of the model is the problem of multicollinearity or interaction of independent variables. The problem arises when a form of relationship exists between independent variables themselves as well as between independent and dependent variables. To mitigate the problem, variables must be selected so as to eliminate collinearity as far as possible. Finally, users of the regression results have to understand that results that are correct mathematically are not usually applicable to the situations in hand. The understanding of the problem is beneficial for users when applying the results of regression not simply a blind interpretation of the mathematical results.

When using regression as a method of analysis, it should be understood that multiple regression analysis is not an examination of causal analysis. If we find that an independent variable is able to explain a percentage of variation in the dependent variable, it is not the same as saying that that factors or independent variables cause or drive the occurrence of the phenomenon. Concerns must also be placed on the fact that the results of a regression model are only true for the sample that has been selected and not for the whole population. Although we made efforts to infer that the results in our regression were applicable to the case of the whole population, the results are applicable, for example at 95 % level of confidence.

5.5 Model Specification

Regression analysis is one of the available models that may be applied in research to find factors which are able to explain a specific phenomenon of research interest. In our case, multiple regression analysis was conducted to explain the variation in demand for financial assets. Multiple independent variables selected in the light of theoretical and empirical findings of other researchers will be tested to explain the variation of financial asset demand. The regression model was adopted in similar studies on the life-cycle effect by Jan Tin (1998), Ioannides (1992) and Poterba and Samwick (1997).

$$Log\ m_t = \beta_1 + \beta_2\ log\ w_t + \beta_3 S_t + \beta_4 D_{risk} + \beta_5 D_{CFP} + \beta_6 D_{conventional/Islamic} + \beta_7 sya\_lit + \beta_8 fin\_exp + \beta_9 fin\_plan + e$$

Where:

m_t=quantity of monetary or financial asset demanded during the period t

w_t =scale variable representing household income, wealth and net worth

S_t= a set of socio-demographic variables (age, gender, marital status, race, educational level, job sector)

D_{risk}= Dummy for risk preferences

D_{cfp}= Dummy for engagement with certified financial planners

$D_{conventional/Islamic}$= Dummy for preference for Islamic and conventional financial assets

Sya_lit= the level of Syariah literacy

Fin_exp= the level of exposures to personal financial issues

Fin_plan= the regularity of monitoring of personal financial activities

e= error term

Composite or scale variables were used in the regression equation. The variable consisted of three different wealth measurements. They are householders' income, wealth and net wealth. Three different wealth measurement variables have to be tested separately in order to correctly measure the wealth factor without the problem of multicollinearity being incurred. It meant that, for the type of financial assets under examination, three separate equations had to be tested to individually trace the effect of each wealth measurement on the demand for financial asset.

5.6 Measurement and Analysis

Variables included in the research were measured accordingly before the data collection process and analysis was performed.

5.6.1 Dependent Variables

The amount of financial assets held by householders is the subject of interest of this research. Financial assets included in the research were chosen on the basis of the most common types of assets held by average middle-income investors and of the familiarity of the assets to average householders. By research in the marketplace via the internet and websites of the leading financial institutions, such as banks, insurance and unit trust companies, the following lists of assets were included in the research are as follows: savings accounts in all financial institutions in Malaysia, shares listed in Bursa Malaysia, the Malaysian stock exchange (formerly known as the Kuala Lumpur Stock Exchange, KLSE) notwithstanding whether they were in the first or the second board and unit trusts [37]

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[37] In the U.S, types of financial assets usually included in similar research are checking accounts, NOW and Super-NOW accounts, passbook savings, certificates of deposit, stocks and mutual funds and municipal and corporate bonds. See Wolff (1979), Jan Tin (1998, 2000) and Ioannides (1992).

Transaction accounts, namely current accounts, were excluded as our main concern was to track the financial asset holdings of householders which only related to savings and wealth accumulations. The holding of current accounts is also less common than savings accounts in Malaysia where financial institutions usually offer savings accounts to their customers more than they offer current accounts.

Householders were asked to declare the actual amount of financial assets they are holding. Having the ratio scale data ensured that a parametric test of multiple regressions could be carried out. The actual amounts were then transformed into logarithm values to avoid the possibility of non-normality distribution of the data obtained. By taking the log function, dispersion of values for the amount could be reduced thus reducing the incidence of having data that have outliers' values.

5.6.2 Independent Variables

Sets of independent or explanatory variables have been recognised as able to explain the variation in the demand for financial assets of our research. Measurement of all independent variables will be discussed alternately.

Economic Factors

The economic factors were householders' current income, amount of their wealth and net wealth. These variables were then separately tested in each regression for every type of financial asset. This is because income, wealth and net wealth are heavily correlated due to the one being a subset of another. For example, wealth includes income values and net wealth is the difference of wealth to financial obligations under the names of respondents and their spouses.

In our case, income was divided into two categories; labour income and non-labour income. Labour income was wages and salaries while non-labour income was income from financial and non-financial assets such as rental income and income from other sources. Wealth represented the sum of total labour income described earlier and current values of other non-financial assets. Non-financial assets included in our case were current values of homes and other property, estimated saleable value of a business or enterprise, stock of wealth in the form of existing balance in retirement accounts and current values of motor vehicles.

To arrive at the net wealth value, total liabilities of households had been computed. Data on secured and non-secured liabilities was. In this case, secured liabilities consisted of the balance on the hire purchase on homes and other property, the balance of hire purchase debt on motor vehicle, and debt on business and profession as well as margin and broker accounts. Non-secured liabilities are liabilities which are not collaterised against any assets owned by the household. We included credit card bills, loans from individuals, loan from financial institutions, educational loans and other unsecured loans in this category of liability. [38]

Householders were required to furnish the actual amount of their income, wealth and net wealth. The monetary values of the assets were transformed into logarithm values for the same reason as the amount of financial assets explained earlier.

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[38] The categorisation and definition for income, wealth and liabilities are guided by the practice of the Survey of Income and Participation (SIPP) of the U.S bureau of Census and Survey of Consumer Finance (SCF) of the Federal Reserve Board of U.S.

Age Factor or Life Cycle Hypothesis

To test for the existence of the life-cycle effect, householders' current age were obtained. There were three distinct age group-boxes for respondents to fill in. The three groups' categories are less than 30, 30-50 and more than 50. The groups represent qualitative variables. These are variables which can not be quantified in a meaningful way. To mitigate the problem, they had to be transformed into indicator variables or dummy variables. [39] The three dummy variables were then tested in the regression analysis in order to ascertain if there was life-cycle effect for the demand for financial assets.

Socio- demographic Variables

A set of other socio-demographic variables (gender, marital status, race, educational level, job sector) were also converted into indicator or dummy variables. Respondent's gender and marital status represent a dichotomy item with a choice of responses: male or female for gender; and single or married for marital status of householders. Other variables, i.e. the respondents' race group, level of education and job sector, fall into categories items. For example, responses for racial type could be Malay, Chinese or Indian. As for the level of education, the possible responses were secondary school, diploma, degree graduate and Master's degree qualification. Options in the job sector were fixed as self-employed, government sector or private sector.

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[39] See Dielman T.E (2001), Applied Regression Analysis for Business and Economics, 3rd Edition, Duxbury Thomson Learning.

Risk Tolerance Level

This variable is a dichotomy item. Respondents were asked "Do you prefer to invest in bonds or stocks?" They were also briefed that investments in stocks are riskier but have prospects of obtaining higher returns. The purpose of asking this question was to assess respondents' risk tolerance levels. If a respondent selected the option of bonds, we have assumed that he is risk adverse compared to those who selected for the option of stocks.

Choice of Hiring Certified Financial Planners

For this question, respondents were faced with options of yes and no. The wording of the questions were "Did you hire the service of certified financial planners?" If they chose the option "Yes", they were then asked to explain why they decided to do so. The options here were whether they were confident with the advice, whether they believed that CFP recommended suitable financial products, whether they felt that they do not have the expertise and confident to do it themselves and finally whether they do not have sufficient time to do their financial planning. If they answered "No", they had then to answer the next question of why did they did not hire the service of CFP. Options here were: Did you do not have enough funds to hire a CFP? Are you capable of managing your own financial affairs? Are you not comfortable for other parties to be involved in your financial planning? And finally, are you not familiar with the service provided by CFPs? The dummy variable of respondent's involvement with CFP was then regressed against the demand for financial assets to analyse whether respondent's involvement with CFP is significant in driving the demand for financial assets.

Preference for Islamic and Conventional Financial Assets

Because one of the objectives of the study was to analyse the demand for Islamic and conventional financial assets, a dummy variable to assess respondent's preference for the two types of financial assets was asked. If they chose the option of Islamic financial assets, this was taken to mean that they prefer to invest *Syariah* approved assets. If they had invested in a combination of the two products, they had to declare which type of financial assets (Islamic or conventional) they preferred more. If the result of the dummy variable is significant, this was taken to mean that there is a significant difference between respondents' demand for Islamic financial assets and conventional financial assets. In other words, the way respondents' chose the type of financial assets affect the level of demand for that type of asset.

***Syariah* Literacy**

This variable was included in the study to capture the respondents' level of *Syariah* literacy. It relates directly with examining the demand for financial assets especially with the specific intention of distinguishing between the demand for Islamic and conventional financial assets. The level of *Syariah* literacy relates to respondents' exposure to issues in Islamic finance such as their understanding on the prohibition of *riba*', unlawful activities, uncertainty, gambling and discouragement of monopolies. Furthermore, respondents were then asked whether they were aware of various aspects concerning the *Syariah* Advisory Boards. They were asked whether they were aware of the existence of such boards and who the key persons of the boards are what the boards stood for and how aware were they on lists of *halal* counters approved by the boards. A total of 10 questions were posed to measure respondents' levels of *Syariah* literacy. The response format was a five-point Likert scale ranging from 1-point (poor), indicating the lowest level of literacy, to 5-point (excellent) indicating the highest level of literacy. The lowest total score is 10, whilst the highest total score

is 50 indicating that the level of *Syariah* literacy to the demand for financial assets is high.

Financial Exposure

The Likert scale was used in measuring a respondent's financial exposure. In this case, respondent's level of financial exposure was captured using variables such as the usage of financial information from such sources as business magazines, newspapers, television programmes, radio programs and representatives of financial products. The response format was from 1-point (never use) indicating the lowest level of literacy, to 5-point (use greatly) indicating the highest level of literacy. A total of 5 questions were asked. The lowest score is 5, whilst the highest score is 25 indicating that the level of financial literacy to the demand for financial assets is high.

Financial Planning

As for the measurement of the concept of financial planning, four questions were asked. They were asked on how often they save for their future, monitor their income and expenditures, and investments and retirement accounts. A 5-point Likert scale was used in this case. 1 point was given if they answered "never", 2 points for "once in a year", 3 points for "once in 6 months", 4 points for "monthly" monitoring and 5 points if they monitored their personal financial activities "weekly".

5.7 Data Collection Issues

5.7.1 Population, sampling frame and sampling method

The choice of sample frame is critical to the sampling process. If the frame is wrongly defined, it will result in the sample not being representative of the target population. As wrongly defined sample frame is the result of under-definition or over-definition of the subjects. For example, an under-defined sample frame may contain the target population plus others who should not be included. The sample frame may be also ill-defined where it contains wrong sets of subjects. This is the case where the sample frame does not contain the target population.

For this study, the sample frame was very large. This is because we did not have the information on the total size of our population, which is the total number of respondents investing in various types of financial assets. This information was not obtainable as, being confidential by nature, to obtain it from related financial institutions such as unit trust institutions and savings institutions would lead to a breach of confidentiality regulations. The sample frame, thus, could not have been made available in our case. Furthermore, names, addresses and other information of investors are also confidential by nature.[40]

There are two types of method that may be used when conducting sample surveys. One is probability sampling and the other is non-probability sampling. Probability sampling is a method of selecting a sample such that each sampling unit has a specific probability of being chosen. Probabilities of sampling units to be chosen may be either equal or not equal. There are various types of probability sampling but the most commonly used technique is simple random sampling. Non-probability sampling, on the other hand is a method of selecting sampling units using no specific

[40] The confidential clients' information had been expressed in BAFIA (Banking and Financial Institutions Act 1989, Part VIII)

probability structure. The method of selection of non-probability sampling is based on various factors, for example, the percentage of a specific group to the population or quota and a self-selection of sampling subjects or voluntary sampling.

For probability sampling to be conducted, a full sampling frame is needed. The absence of a sampling frame in our case limited the use of probability sampling. This of course would adversely affect the quality of empirical study in our research. This is because probability sampling is superior to non-probability sampling, because only results from probability sampling can be generalised to the whole population. Non-probability sampling, on the other hand, limits the use of sample survey results to be inferred to the whole population. But, in social sciences study, this does not apply. Inferences in social science research drawn term sample surveys are now accepted and justifiable. This is only possible, however, if samples taken represent the population under the study (Oakes, 1986).

Driven by the unavailability of a sampling frame, voluntary sampling technique was utilised. This gave the prospect of increasing the level of participations of sampling units. This technique is widely used in market surveys where the significance of participation is needed. Voluntary sampling in this study is not merely applied only for its conveniences, but more on the ground of statistical requirement of sampling frame which was lacking in our research. Furthermore, increasing the level of participation could be ensured by using this specific sampling technique of non-probability sampling.

For this reason, responses related to financial assets were collected. Thus, the data from banks on savings account holders, unit trust institutions for unit trust holders and securities companies for share holders were assembled. Only respondents who "passed" the vetting process were invited to answer the questionnaires. By collecting the data from places which contain the subjects related to the sample, the applicability and relevancy of the data is enhanced.

The projected numbers of individuals acting as heads of a householder to fill in the questionnaires ranged from 200 to 300. They were to be offered small a key chain as in gratitude for their participation.

5.7.2 Sample size estimation

The aim in sampling was to get an accurate estimate of the population's characteristics from measuring the sample's characteristics. The main contributing factor in deciding whether the estimates will be accurate is to ensure that the sample is representative of the population. One way to achieve this is to determine on the correct size of the sample. The basis for calculating the size of samples is that there is a minimum sample size required for a given population to provide estimates with an acceptable level of precision. Any sample larger than the minimum size, if chosen properly, should yield results no less precise, but not necessarily more precise, than the minimum sample. Using a small sample increases the possibility that the sample will not be representative, but a sample that is larger than the minimum calculated sample size does not necessarily increase the probability of getting a representative sample. As with precision, a larger-than-necessary sample may be used, but is not justified on statistical grounds.

In addition, both an appropriate sample size with the proper sampling technique is required. If the sampling process is carried out correctly, using an effective sample size, the sample will be representative and the estimates it generates will be useful.

There are several assumptions which have to be made when estimating sample sizes. First, has to be assumed that estimates produced by a set of samples from the same population are normally distributed. Estimates from samples may either follow the

normal distribution pattern or non-normal distribution pattern. A well-designed random sample is the sampling method that will most usually produce such a distribution. In this study, we assumed the normality of the sample estimates could be achieved due to the representative quality of samples to the population which the sampling techniques used. This assumption is vital if researchers wish to determine their sample sizes using the normal distribution formulae recommendation.

The second stage is to assume or rather decide on the level of acquired accuracy of the sample estimate. For example, if we decide that the accuracy has to be ± 5%, the estimated value must be within five percent either way of the 'true' value, within the margin of error defined in the next assumption.

We can decide on a *margin of error* for the estimate, usually expressed as a probability of error (5% or 0.05). This means that in an acceptably-small number of cases (e.g. five out of a hundred) our sample estimate is *not* within the accuracy range of the population estimate defined in the last assumption.

We can provide a value for the population variance (S^2) of the variable being estimated. This is a measure of how much variation there is within the population in the value of the property we are trying to estimate. Note that it is the variance of the population of variables that is needed to calculate the appropriate sample size. In general we would require a larger sample to accurately estimate something that is very variable and a smaller sample in the situation of less variation in the population variance. Although we almost never have a value for the population variance, there are various ways of obtaining an estimate to be used in calculating sample sizes. Conducting pilot studies before performing the actual sample survey is a valid estimation technique of population variance of variables.

The formula for this rule of thumb is based on the standard error as used in normal curve tests. Size determination formulae were as follows:

$$Sample\ Size = (S^2)\ *z/T)^2$$

where (S^2) is the population variance of the variable with the largest variance (perhaps estimated in a pre-test sample),

z is the number of standard units corresponding to the desired proportion of cases (z = 1.96 for two-tailed tests at the 0.05 significance level), and

T is the tolerated variation or margin of error in the sample as described above.

It is to be noted that the sample size is not related to population size (N); it depends on the variability of the population and the accuracy and that we wished to achieve as well as our toleration for errors in the results.

In relation to the determination of sample sizes, Roscoe[41] suggested that for multivariate research, the sample size should be ten times or more than the number of variables in the study. In our case, the number of predicting variables was 17, thus the minimum number of response needed was 170. A more relaxed approach was also proposed by Roscoe that sample sizes of 30 to 500 are appropriate for most research. For the reason of simplicity, we observed his suggestions when determining the sample size of our research.

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[41] As cited in Sekaran (2003).

5.8 Research instruments, reliability and validity tests

Each of the individuals was thought to be suitable was given a set of questionnaires. Householders with comprehensive holdings of financial assets were included in the study and required to provide input data about their level of income, wealth, net worth and their pattern of financial assets holdings. To ensure the quality of the data, a vetting process was conducted before the questionnaires were distributed. Further justification of the vetting process was to make sure that the only householders with an appropriate level of financial assets holding were included. The wrong type of respondents would allow an inappropriate evaluation being drawn on the life-cycle effect on financial asset demand.

In respect of the data on the demand for financial assets, household holdings for the three types of assets, namely unit trusts, shares and saving accounts, were recorded as well as the level of assets held. We used micro data obtained directly from households in order to mitigate the shortcomings of using aggregate money supply as has been done in other studies. Using the aggregate money supply as proxy for demand for financial assets can lead to identification problems as discussed in Laidler (1977 and Cooley and LeRoy (1981). If research using aggregate data is to be conducted, difficulties to decompose the components of data at the aggregate level will result to inaccuracy of the data is being used. For this reason, we decided to use micro data obtained directly from the target group of our study to eliminate any identification problem.

Data on the characteristics of householders, on the other hand, who actually demand the types of assets referred to above, had to be observed. In this respect, data on labour income, wealth, net worth, demographic, socioeconomics had also to be made available. Jan Tin (1998) in similar study used the above types of data which he obtained from the Survey of Income and Program Participation (SIPP). The reference on what types of background data to collect can be found in the Survey of Consumer

Finance in the U.S. In Malaysia, there have been no surveys on consumer finance ever conducted apart from data emanating from the census on population is done once in every 5 years. Lack of micro data available on household finances forced us to conduct questionnaire sessions in order to retrieve the information on wealth, income, liability holdings, choices of financial assets held as well as socio-demographic data. Apart from this, other information needed to pursue this research, such as the

On the other hand, data on the characteristics of householders who actually demand the types of assets referred to above had to be observed. In this respect, data on labour income, wealth, net worth, demographic, socioeconomics had also to be made available. Jan Tin (1998) in similar study used the above types of data which he obtained from the Survey of Income and Program Participation (SIPP). The reference on what types of background data to collect can be found in the Survey of Consumer Finance in the U.S. In Malaysia, there have been no surveys on consumer finance ever conducted apart from data emanating from the census on population is done once in every 5 years. Lack of micro data available on household finances forced us to conduct questionnaire sessions in order to retrieve the information on wealth, income, liability holdings, choices of financial assets held as well as socio-demographic data. Apart from this, other information needed to pursue our research such as the involvement of professional assistance on portfolio allocation and the attitude of households towards *Syariah* compliancy had to be collected.

As the data concerned household finances issues covering major important areas in consumer finances, our study may act as an incentive stepping-stone to such authorities such as Bank Negara Malaysia to conduct similar survey to widen understanding on the current situation of consumer finances in the country. Such an initiative is needed as BNM is the main authority responsible in drafting various policies relating to consumer finances such as rates of interest, the promotion of certain types of financial asset holding and monitoring the inflation rate for the whole economy. By understanding the actual situation of consumer finances, macro

economic policies may be formulated in a more informed way. Furthermore, data, information and research on consumer finance are needed for subsequent research on consumer finance to be conducted. This is the case in the U.S where numerous studies are conducted concerning household portfolio allocation behaviour and consumer finance issues. Research by Teichman et al. (2001) is among other studies that used data from the Survey of Consumer finance provided by the Federal Reserve Board of U.S as a benchmark for their work on the management of personal finances among urology residents. A similar initiative is needed to facilitate similar research in Malaysia.

Jan Tin (1998) conducted a time series study to examine major financial assets in the U.S. Our study, in contrast is a cross-section study of major financial asset demand in Malaysia. The choice to perform the cross-section analysis stems partly from the lack of previous data related to Malaysian consumer finances which can be used for comparison purposes. Furthermore, by performing a cross-section analysis, information on differences in portfolio allocation behaviour can be thoroughly related to differences in householders' ages. For young, middle aged and old households, behaviour in asset allocations via the types of financial assets chosen may be studied after taking into consideration their background variables of wealth, income and demographic variables.

To ensure that the questionnaire was indeed accurate to measure all the construct variables for Syariah literacy, propensity to plan and financial literacy, Cronbach's coefficient alpha was performed to test for internal consistency of the measures. The reliability of the instrument indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument (Sekaran, 2003). On top of this, the reliability of the instrumentation is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of a measure. In other words, it indicates how well the items in a set are positively correlated to one another. The closer

Cronbach's alpha is to 1, the higher the internal consistency for reliability. An alpha value of 0.7 or more is considered sufficient as suggested by Nunnally[42]. Results in Table 5.10 confirm that items in the questionnaire relating to all construct variables are all consistent across time. For example, for *Syariah* literacy, the alpha value is 0.86. This means that the 10 items constructed to measure *Syariah* literacy are positively correlated to one another. This makes the measurement of the concept consistent across time and various items constitute the *Syariah* literacy variable.

***Table 5.1*:** The Results for Reliability Test

Construct/Variable	No. of Items	Cronbach's Alpha
Syariah Literacy	10	Alpha = 0.8572
Propensity to Plan	4	Alpha = 0.6072
Financial Literacy	5	Alpha = 0.7958

Source: Based on Author's Own Calculation

On the other hand, validity tests enlighten how well the developed instrument was able to measure the particular concept as intended. Validity is concerned with whether we measure the right concept. Principal component analysis (Varimax) was applied to test their construct validity (Cook and Campbell, 1979, cited in Sekaran, 2003).

Table 5.2 shows the results of validity for each construct used in this study. The Bartlett test of sphericity is significant at $p<0.0001$ and the Kaiser-Meyer-Olkin measure of sampling adequacy for each construct is greater than 0.7 except for a "propensity to plan" measure with the value of 0.638. The desired value for the KMO

[42] According to Nunnaly (1978), as cited in Sekaran (2003), the satisfactory level of reliability depends on how a measure is being used. In the early stages of research on predictor tests or hypothesized measures of a construct, one saves time and energy by working with instruments that have only modest reliability, for which purpose reliabilities of 0.60 or 0.50 will suffice (p. 226).

test is 0.7 and above although values near to 0.7 can be considered acceptable. This validates that each construct has been developed effectively to measure the variables concept.

***Table 5.2*:** The Results for Validity Test

Construct/Variable	No. of Items	Bartlett's Test		KMO
		Approx Chi Square	Sig.	
Syariah Literacy	10	1568.42	0.000	0.845
Propensity to Plan	4	123.44	0.000	0.638
Financial Exposures	5	452.51	0.000	0.731

Source: Based on Author's Own Calculation

5.9 Procedures for Questionnaire with Householders and Questionnaire with Financial Planners

500 sets of questionnaires were personally distributed in the place of data collection between the periods of 1st November 2005 to 31st December 2005 (Refer to Appendix 4 for the full questionnaire). The questionnaire sessions were held in Permodalan Nasional Berhad, Tabung Haji, Maybank, APEX, and KN Kenanga[43]. For Tabung Haji, in addition to their clients, all managers in every department in its headquarters were also approached. Most of the time, respondents were asked to return the completed questionnaires promptly. The researcher used the opportunity to distribute the questionnaires directly to respondents while they were waiting for services at the counters. They were allowed to return their questionnaires by post for which they

[43] Permodalan Nasional Berhad is a unit trust company which sells various unit trusts products. Tabung Haji is a non-banking financial institution that facilitates depositors to perform *hajj*. Depositors also can deposit there solely for saving and investment purpose. Maybank is a local banking institution that is considered as a major bank in Malaysia. APEX and KN Kenanga is the brokerage houses that manage accounts of investors investing in various selections of shares and bonds.

were given a self-addressed enveloped. The researcher believed that by personally approaching the respondents, they would be more likely to answer the questions with care once they had agreed to take part.

At the end of the period of data collection of seven weeks, a total of 258 completed questionnaires had been answered leaving 242 questionnaires unanswered. The completed 258 questionnaires represent a response rate of 51%. The response rate of 51% is considered high, according to Roscoe (as cited in Sekaran, 2003) where, for multivariate research, the recommended sample size should be 10 times or more than the number of variables in the study. However, Roscoe also stated that sample sizes of between 30 and 500 are appropriate for most research.

With regards to the financial planners, we sent the questionnaire via emails (A sample of an invitation letter to a financial planner and his answers to the questionnaire can be found in appendix 8). Telephone calls followed later to confirm their participation. Initially face-to-face interviews were planned, but after much discussion it was agreed that it would be more convenient and time-saving for the questions to be answered electronically. The responses of the financial planners who agreed to participate were fast. Financial planners only took an average of a week to respond to the questions.

Initially, the names and contact details of practising financial planners was obtained from FPAM's website. At the time of our research, there were the names of ten financial planners actively advertising their services on the website[44]. Emails containing the invitation letter sent to all ten of them in addition at a new contact, Independent Islamic Financial Planners (IIFIN) Sdn. Bhd. that had been obtained

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[44] A new list of licensed financial advisers (financial planners) as at 30th June 2005 are available at: http://www.fpam.org.my/pdf/Licensed/IAFP.pdf. The new lists consist of 20 companies and 34 individuals practicing as certified financial planners. The updated lists had been produced according to the new requirement of Securities Commissions of Malaysia (SEC) on financial planners wanting to practice in Malaysia.

through my attendance to a financial planning conference[45]. Eventually, a total of seven financial planners agreed to participate.

Table 5.3: The Lists of Certified Financial Planners on FPAM's Website as at 10th November 2005

Rajen Devadason, RD WealthCreation Sdn Bhd Tel: +60-6-6328955, Email: rajen@rajendevadason.com
NK Foo, NK Foo Business Solutions Sdn Bhd Tel: +60-88-262630, +60-88-256684, Email: nkfoobiz@po.jaring.my
Poedjo Soesilotomo, ATA Capital Sdn Bhd Tel: +60-88-238706, +60-88-216000, Email: tom@atacapital.com
Christina Lo, Purmacs Corporate Network Sdn Bhd / Purmacs Management Sdn Bhd Tel: +60-88-255199, +60-88-255655, 088-266166, Email: purmacs@po.jaring.my
Robert Foo, MyFP Services Sdn. Bhd. Tel: +60-3-89963292, +60-3-89963428, Email: robert@myfp.com.my
Chan Chee Sing, MyFP Services Sdn. Bhd. Tel: +60-3-89963292, +60-3-89963428, Email: chancs@myfp.com.my
Arbayah Ismail, Moreclass (M) Sdn Bhd Tel: +60-3-55128700, Email: arbayah@tm.net.my
Thum KP, KPR Wealth Management Sdn Bhd Tel: +60-4-6567885, +60-4-6570132, Email: kpthum@kprwealth.com
Mike Lee, CTLA Financial Planners Sdn Bhd Tel: +60-3-78061422, Email: mikelee@ctla.com.my
Teoh Kok Lin, Singular Asset Management Sdn Bhd Tel: +60-3-62016208, Email: koklin@singular.com.my

Source: www.fpam.org.my

After contacting the financial planners, 7 financial planners agreed to participate. This reflects the participation rate of 70% which is very high. The financial planners who had accepted our offer to participate in the research are as follows:

a. Poedjo Soesilotomo of ATA Capital Sdn. Bhd.
b. Maznita Mokhtar of IIFIN Sdn. Bhd.
c. Robert Foo of MyFP Sdn. Bhd.
d. KP Thum KPR Wealth Management Sdn. Bhd.

[45] Seminar Kewangan Keluarga Islam (Seminar on financial management for Muslim families), was held on 25-26 December 2004 at the Pan Pacific Hotel. The event was organized by Institut Kefahaman Islam Malaysia (Institute of Islamic Understanding Malaysia), government body disseminating information about Islamic affairs and Hijrah Strategic Advisory Group (Hijrah) whose executive director is Hajah Rohani Datuk Mohd Shahir, a prominent expert in Islamic financial planning. Hijrah is one of many IFP Education providers of FPAM offering FPAM Practice Module 1: Islamic Financial Planning Course.

e. Rajen Devadason of RD WealthCreation Sdn. Bhd.
f. Arbayah Ismail of Moreclass Sdn. Bhd. – the company collaborates with CTLA financial planners
g. Karen Ong of OSK wealth planners

The questions were designed to know about the financial planners such as on their background such as their qualifications, number of years they had been in operation as well as on their age and gender. On the question of their experience in financial planning we were keen to learn about the types of services they offered, methods of compensation and the types of clients the dealt with. We asked about their clients' demographic as well as their economic background. In order to learn more about the level of financial planning expertise of householders who had chosen to hire them we requested planners to rate their clients' skills. We also sought information on their clients' level of knowledge on Islamic financial planning.

5.10 Conclusion

Our research aim was to study the demand for financial assets in Malaysia. To do that, we tested on the presumable factors which drive the demand for financial assets which includes savings accounts, unit trust and shares. A set of questionnaire was developed to accomplish the research objectives accordingly. Consequently, data were then analysed systematically by using the SPSS: a statistical package commonly used in social sciences research. One of the aims of the research is also to learn about financial planning in Malaysia in term of the practice of financial planners and the background of their clients. In order to do that, we designed a questionnaire for financial planners to provide the relevant information.

CHAPTER 6

DETERMINANTS OF THE DEMAND FOR FINANCIAL ASSETS IN MALAYSIA: EMPIRICAL RESULTS AND FINDINGS

6.1 Introduction

This chapter presents the empirical results of the study. The first section provides profiles of the respondents who participated in the study. It is followed by the descriptive statistics of the data collected. A descriptive statistics presentation is important to make sense of data and will also assist readers who are less familiar with the jargon of regression analysis to benefit from the findings of our research. In order to identify factors important to the level of demand for financial assets, we present our descriptive results in a similar manner to assist readers to understand the objective of the study rather than merely to describe data. In other words, the descriptive statistics presentation should serve more than a mere description of the data but also as an opportunity to understanding the demand for financial assets. The areas of descriptive statistics that discussed are the demographic characteristics, financial characteristics and various aspects of household demand for financial assets.

Next in this chapter are the results of the validity and reliability of the research instruments. Tests on the validity of the instruments used in data collection were necessary in order to validate the data collected and concepts we measured. This is relevant for the construct variable created to measure the concepts of *Syariah* literacy, financial literacy and the household's propensity to plan. The next test presented is the reliability test which is needed to check that the instruments used are consistent each and every time they are used and thus are reliable to measure the intended concept.

The main result of the analysis using multivariate regression analysis is reported next in the chapter. Model summary that contains the estimation of the goodness of fit of the data (R, R^2 and $\overline{R}^2$) is presented for all three types of financial assets. Standard error of estimate, F-test that assess overall performance of the regression model and Durbin Watson test that reflects the degree of dependency of variable with its own error term, i.e. autocorrelation, is also presented.

Finally, the results of post-regression tests or diagnostic tests performed to validate all the assumptions for the regression analysis are reported in this chapter. The diagnostics tests for linearity, constant variances, and normality distribution of data collected. In addition, we tested for autocorrelation of disturbance and to assess correlation between independent variables. These tests were performed in order to ascertain that multiple regression analysis performed was correctly and precisely carried out so that the results can be relied upon.

6.2 Descriptive Statistics

6.2.1 Demographic background

Table 6.1 depicts the respondent's characteristics with regards to their demographic backgrounds, from where it can be observed that most of the respondents were aged between 30 and 50 years. 65.5% of observations are from this age group. Nearly 67% are male. Most of the respondents are married householders. 41.5% of respondents hold undergraduate degrees. In terms of job sector, most of our respondents are working in the private sector. Finally, a high majority of 91% of our respondents are Malay.

Table 6.1: Respondent's Demographic Backgrounds

Demographic backgrounds		**Frequency**	**Percentage**
Age	Less than 30 years	40	15.5
	Between 30-50 years	169	65.5
	More than 50 years	49	19.0
Gender	Male	172	66.7
	Female	86	33.3
Marital status	Single	34	13.2
	Married	220	85.3
	Divorced	4	1.6
Highest academic qualification	Secondary school	28	10.9
	Diploma	66	25.6
	Degree	107	41.5
	Master's degree	52	20.2
	Doctoral degree	5	1.9
Job sector	Self-employed	33	12.8
	Government	96	37.2
	Private	123	47.7
	Currently unemployed	6	2.3
Ethnicity	Malay	236	91.5
	Non-Malay	22	8.6

Source: Based on Author's Own Calculation

From the frequency analysis in Table 6.1, we decided to use the highest frequency for every group as the base or dummy group. As many demographic background variables are categorical variables, one category has to be treated as the control group or dummy variable before multiple regression analysis can be employed. Thus, the categories of "age between 30-50 years", "male", "married", "degree", "private sector" and "Malay" were regarded as the base groups. For frequency analysis, we also decided to drop insignificant categories in which the frequency of response was significantly low. These categories are "divorced", "doctoral degree" and "currently unemployed". The justification for the decision is for the regression not to be over-

burdened with the inclusion of less significant variables. Inclusions of the respective insignificant categories would result in lengthy regressions that would be of little to the research. Trivial data can also introduce outliers that could adversely affect regression analysis.

6.2.2 Financial Background: Income, Wealth and Net Wealth

In addition to the respondents' demographic data, data on their financial position, for example their level of income, wealth and net wealth, were also collected. From the sample size of 258; n=258, a mean value which indicates the average income of respondents was about MYR 83,000[46] annually. The value of mean is higher than of the median of nearly 58,000 annually. The value of the standard deviation is huge at about MYR 100,000. This indicates that the value of an observation can be higher or lower than the mean value by that amount. High standard deviation signals that we have to convert the definite value of income to logarithm values. This is in order to reduce the gap between the absolute values to eliminate obvious outliers' data which in turn can affect the quality of the research. The minimum value of recorded income is zero and the highest is MYR 855,000 and this large gap between the minimum and maximum value contribute to high standard deviation.

The mean value of wealth, which is the addition of income and other assets holding such as property and motor vehicles as well as financial assets is higher at more than one million. The median is also high at more than MYR 700,000. The standard deviation is very high at 1.4 million. The minimum value is nearly MYR 41,000 and the maximum is nearly MYR 16 million. On the other hand, the mean value of net wealth of respondents is nearly MYR 900,000. Net wealth reflects the addition of income and assets after all liabilities have been deducted which explains its lower

[46] All figures are in Malaysian currency, Ringgit Malaysia (MYR).

mean value in comparison to the mean value of wealth. Standard deviation is also high at nearly 1.3 million. The minimum value of net wealth has negative values of MYR -3,200. Maximum value of net wealth is very high at about 15 million.

The mean values for income from non-financial assets such as rental and royalty are much higher than income from financial assets at about MYR 23,000 as compared to nearly MYR 3,000 for the latter. Standard deviation is much higher for income for non-financial assets compared to income for financial assets. This demonstrates that the former is more volatile than the latter. This might be due to the higher maximum values of MYR 840,000 for income for non-financial assets compared to only MYR 50,000 for income from financial assets. Table 6.2 summarises respondents' financial position.

***Table 6.2*:** Respondents' Financial Position

Financial characteristics	Mean	Median	Standard Deviation	Minimum	Maximum
Income	83,164.20	57,600.00	105,411.44	0.00	855,000.00
Wealth	1,034,700.01	716,600.00	1,393,498.37	40,800.00	15,695,300.00
Net wealth	835,358.53	491,150.00	1,299,940.58	-3,200.00	15,045,300.00
Income from non-financial assets	23,059.30	0.00	96,339.52	0.00	840,000.00
Income from financial assets	2,903.49	100.00	7,438.76	0.00	50,000.00

Note: All values are in Malaysian Ringgit (MYR). Source: Based on Author's Own Calculation

6.2.3 Frequency Analysis on the Demand for Unit Trusts, Shares and Savings

As the main objective of the research is to examine the level of demand for financial assets of respondents, we asked them about the type and level of financial assets they held including unit trusts, shares and savings. The mean value of respondents' holdings of unit trusts, shares and savings is slightly higher than MYR 50,000, nearly MYR 19,000 and slightly more than MYR 13,000 respectively. The median value for unit trust and savings is comparable at the value of MYR 8,000 and MYR 10,000 while the median value of shares is zero. The standard deviation for unit trusts is the highest at about MYR 112,000 while the standard deviation for shares and savings is comparable at about MYR 60,000 for both types of financial assets. Maximum values for unit trusts are MYR 540,000 while for both shares and savings they are MYR 400,000. The descriptive statistics are presented in Table 6.3.

Table 6.3: Amount of Respondents' Financial Assets

Items	Mean	Median	Standard Deviation	Minimum	Maximum
Total Value of Unit Trust	51,612.40	8,000.00	112,131.19	0.00	540,000.00
Total Value of Shares	18,992.25	0.00	61,730.00	0.00	400,000.00
Total Value of Savings	13,224.57	10,000.00	59,343.31	0.00	400,000.00

Note: All values are in Malaysian Ringgit (MYR). Source: Based on Author's Own Calculation

Further examination was performed by way of frequency and percentage analysis. Table 6.4 demonstrates the frequency and percentage of unit trust holders at a specific value. It can be observed from the table that 36% of respondents do not hold any amount of unit trusts.

Nearly 59.3 % of respondents hold less than MYR 10,000 worth of value of trust trusts (Refer to the cumulative percent column of Table 6.4). 70.9% of all respondents hold unit trusts to the value of less than MYR 20,000 while 76% of respondents hold less than 30,000 of unit trusts. 85.3% of respondents hold less than MYR 60,000 thus giving the remaining 15% of respondents hold amounts between MYR 60,000 and MYR 540,000. The top 10% of respondents who own unit trusts fall into the range of MYR 230,000 to MYR 540,000.

Table 6.4: Total Value of Unit Trust Held by Respondents

Amount (MYR)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	93	36.0	36.0	36.0
	4000	1	.4	.4	36.4
	5000	13	5.0	5.0	41.5
	6000	9	3.5	3.5	45.0
	7000	5	1.9	1.9	46.9
	7500	2	.8	.8	47.7
	8000	14	5.4	5.4	53.1
	9000	16	6.2	6.2	59.3
	10000	1	.4	.4	59.7
	11000	2	.8	.8	60.5
	12000	5	1.9	1.9	62.4
	13000	4	1.6	1.6	64.0
	14000	2	.8	.8	64.7
	15000	5	1.9	1.9	66.7
	16000	6	2.3	2.3	69.0
	17000	1	.4	.4	69.4
	18000	3	1.2	1.2	70.5
	19000	1	.4	.4	70.9
	20000	2	.8	.8	71.7
	23000	3	1.2	1.2	72.9
	24000	1	.4	.4	73.3
	25000	2	.8	.8	74.0
	28000	1	.4	.4	74.4
	30000	5	1.9	1.9	76.4
	34000	2	.8	.8	77.1
	35000	4	1.6	1.6	78.7
	36000	1	.4	.4	79.1
	37000	3	1.2	1.2	80.2

Table 6.4: Total Value of Unit Trust Held by Respondents (continued)

	38000	4	1.6	1.6	81.8
	40000	1	.4	.4	82.2
	41000	1	.4	.4	82.6
	42000	2	.8	.8	83.3
	45000	3	1.2	1.2	84.5
	50000	1	.4	.4	84.9
	56000	1	.4	.4	85.3
	120000	2	.8	.8	86.0
	130000	2	.8	.8	86.8
	140000	3	1.2	1.2	88.0
	150000	1	.4	.4	88.4
	200000	1	.4	.4	88.8
	230000	5	1.9	1.9	90.7
	250000	1	.4	.4	91.1
	260000	1	.4	.4	91.5
	270000	6	2.3	2.3	93.8
	300000	3	1.2	1.2	95.0
	340000	1	.4	.4	95.3
	350000	2	.8	.8	96.1
	430000	5	1.9	1.9	98.1
	500000	4	1.6	1.6	99.6
	540000	1	.4	.4	100.0
	Total	258	100.0	100.0	

Note: All values are in Malaysian Ringgit (MYR). Source: Based on Author's Own Calculation

The data on the amount of trust holding is skewed to the left which indicates that more respondents hold fewer amounts of unit trusts with fewer respondents having larger holdings. This kind of distribution is typical for householders. The following histogram may help to visualise the situation:

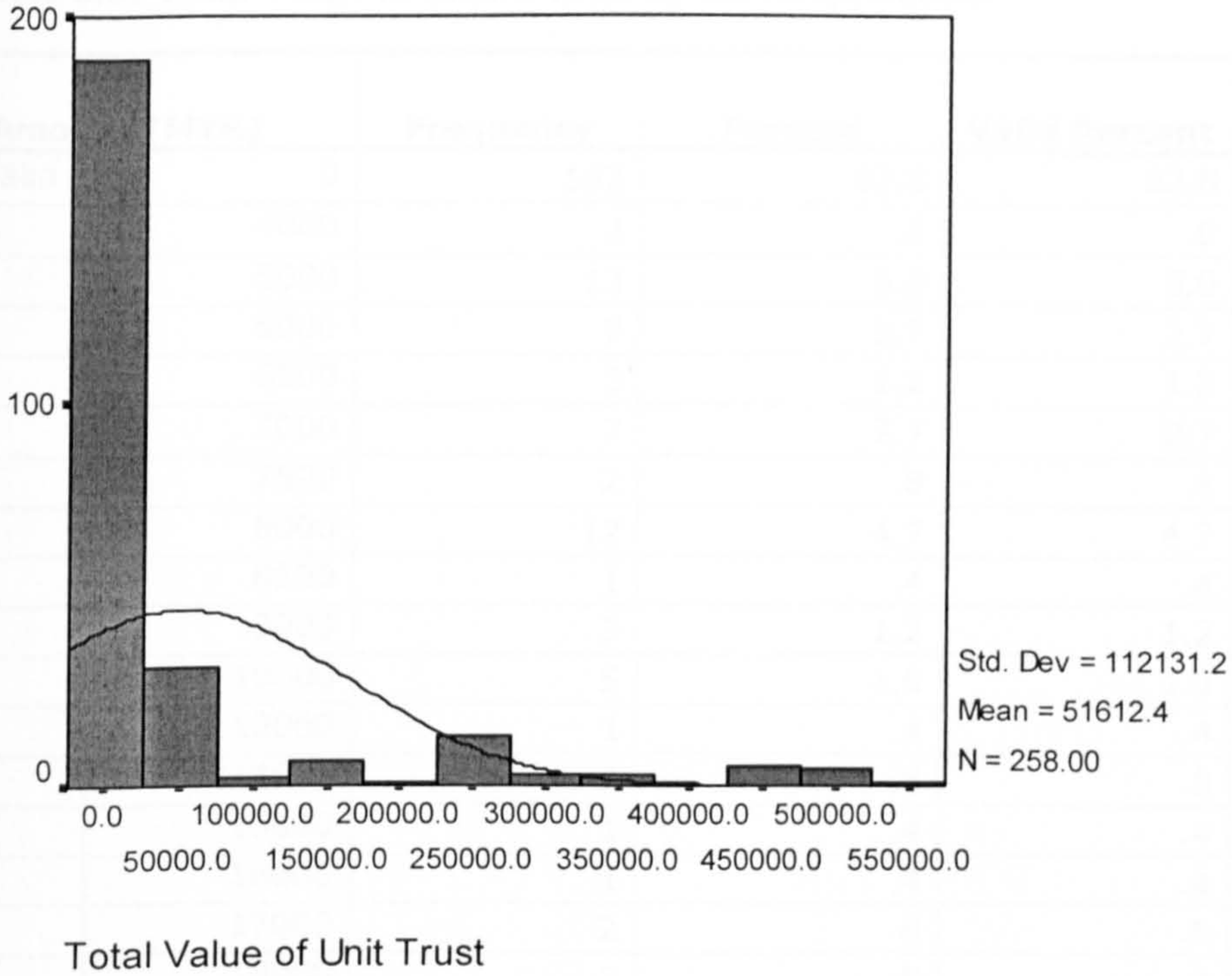

Figure 6.1: Total value of unit trusts holding of respondents

According to Table 6.5, in comparison to the ownership of unit trusts, a very high percentage of respondents do not own shares. 62.8% percent do not own shares compared to only 36% who do. This shows that unit trusts are more popular with the public than shares. This may be due the fact that the provident fund only allows participants to invest in unit trusts and not in shares. The regulation is a blanket approach adapted to participants in order to reduce the exposure to risk and protect the individual's retirement fund which is designed to act a buffer stock when his/her period of employment ceases. 82.2% of the respondents held less than MYR 10,000 worth of value of shares. This indicates that share holding is not a popular type of asset to be held by Malaysians. 90% of the householders held MYR 42,000 or fewer values of shares. The data also revealed that the demand for shares dispersed greatly from MYR 40,000 to 400,000 for the remaining 10% of the respondents.

Table 6.5: Total Value of Shares Held by the Respondents

Amount (MYR)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	162	62.8	62.8	62.8
	4000	2	.8	.8	63.6
	5000	13	5.0	5.0	68.6
	6000	7	2.7	2.7	71.3
	6500	3	1.2	1.2	72.5
	7000	7	2.7	2.7	75.2
	7500	2	.8	.8	76.0
	8000	12	4.7	4.7	80.6
	8500	1	.4	.4	81.0
	9000	3	1.2	1.2	82.2
	10000	5	1.9	1.9	84.1
	12000	1	.4	.4	84.5
	14000	2	.8	.8	85.3
	15000	1	.4	.4	85.7
	16000	1	.4	.4	86.0
	17000	2	.8	.8	86.8
	18000	2	.8	.8	87.6
	33000	1	.4	.4	88.0
	35000	2	.8	.8	88.8
	36000	1	.4	.4	89.1
	40000	2	.8	.8	89.9
	42000	1	.4	.4	90.3
	46000	1	.4	.4	90.7
	50000	1	.4	.4	91.1
	65000	3	1.2	1.2	92.2
	70000	4	1.6	1.6	93.8
	76000	2	.8	.8	94.6
	80000	2	.8	.8	95.3
	90000	1	.4	.4	95.7
	130000	1	.4	.4	96.1
	165000	1	.4	.4	96.5
	180000	1	.4	.4	96.9
	250000	1	.4	.4	97.3
	300000	3	1.2	1.2	98.4
	360000	2	.8	.8	99.2
	400000	2	.8	.8	100.0
	Total	258	100.0	100.0	

Note: All values are in Malaysian Ringgit (MYR). Source: Based on Author's Own Calculation

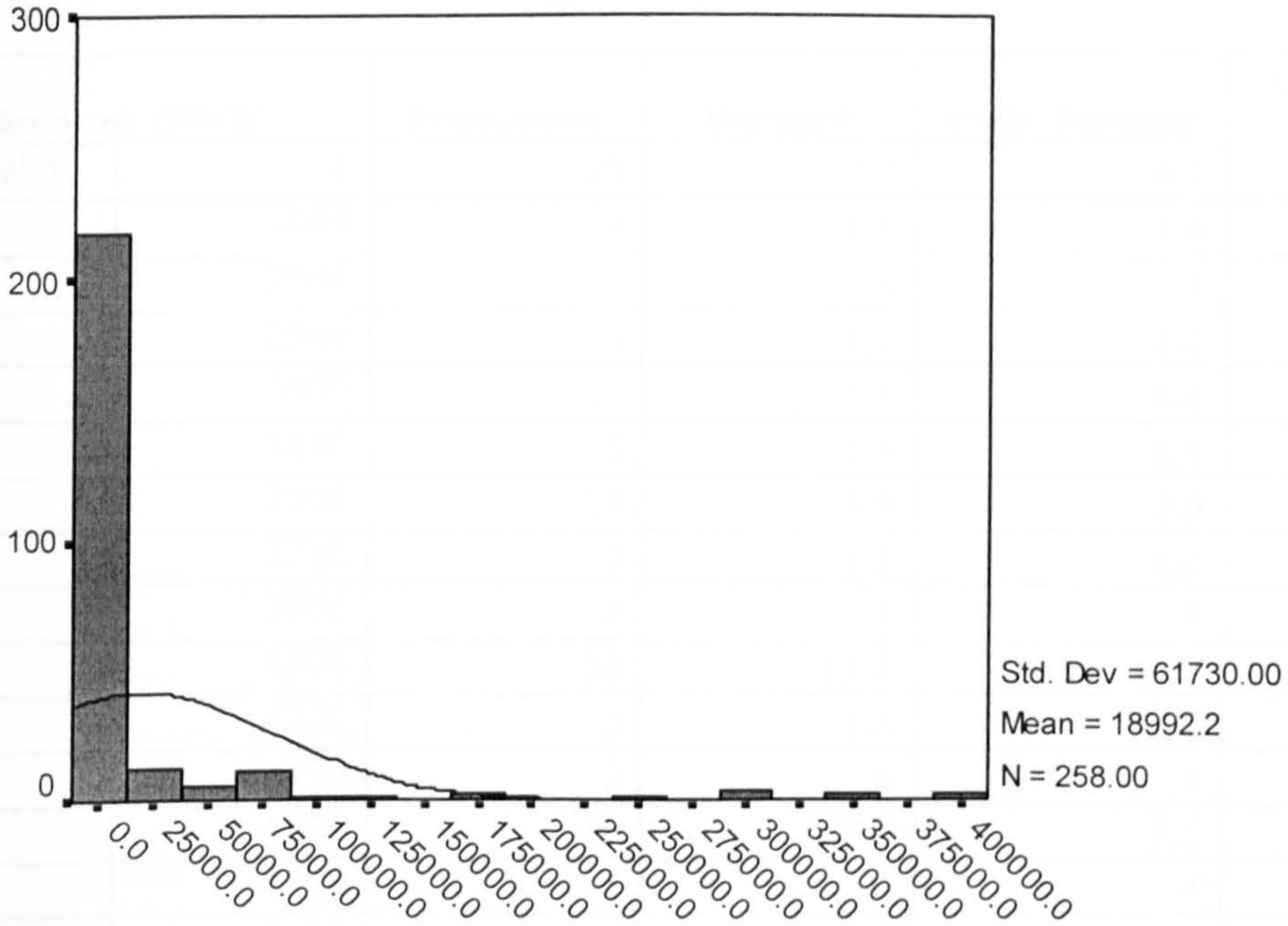

Figure 6.2: Total Value of Share Holdings of Respondents

The percentage of respondents who do not have any savings is low at 9.7% compared to the percentage of respondents who do not hold unit trusts and shares at 36% and 62.8% respectively. On the other hand, 91.9% of respondents hold savings of less than MYR 10,000 leaving the remaining 8.1%% with more than MYR 10,000 savings up to a value of MYR 250,000. This may due to the popular believe that it is necessary to maintain a specific fund for emergency that lasts for several months. Observing Figure 6.3, again it is clear that the distribution for the pattern of demand savings is also tilted to the left. This indicates that more respondents hold fewer savings and that the vast amount of savings is held in the hands of the wealthy 10% of respondents.

Table 6.6: Total Value of Savings Held by the Respondents

Amount (MYR)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	25	9.7	9.7	9.7
	2000	4	1.6	1.6	11.2
	2800	1	.4	.4	11.6
	2900	3	1.2	1.2	12.8
	3000	17	6.6	6.6	19.4
	3400	5	1.9	1.9	21.3
	3500	10	3.9	3.9	25.2
	3700	3	1.2	1.2	26.4
	3900	2	.8	.8	27.1
	4000	29	11.2	11.2	38.4
	4300	3	1.2	1.2	39.5
	4400	2	.8	.8	40.3
	4500	18	7.0	7.0	47.3
	4700	1	.4	.4	47.7
	5000	28	10.9	10.9	58.5
	5300	2	.8	.8	59.3
	5400	2	.8	.8	60.1
	5600	3	1.2	1.2	61.2
	5700	1	.4	.4	61.6
	5900	1	.4	.4	62.0
	6000	21	8.1	8.1	70.2
	6300	1	.4	.4	70.5
	6500	4	1.6	1.6	72.1
	6700	2	.8	.8	72.9
	6900	4	1.6	1.6	74.4
	7000	13	5.0	5.0	79.5
	7400	1	.4	.4	79.8
	7500	2	.8	.8	80.6
	7800	2	.8	.8	81.4
	8000	14	5.4	5.4	86.8
	8400	1	.4	.4	87.2
	8500	1	.4	.4	87.6
	8600	1	.4	.4	88.0
	9000	7	2.7	2.7	90.7
	9500	1	.4	.4	91.1
	9600	2	.8	.8	91.9

***Table 6.6*: Total Value of Savings Held by the Respondents (continued)**

	12000	1	.4	.4	92.2
	13000	1	.4	.4	92.6
	15000	2	.8	.8	93.4
	16500	2	.8	.8	94.2
	23000	1	.4	.4	94.6
	34000	1	.4	.4	95.0
	45000	2	.8	.8	95.7
	100000	1	.4	.4	96.1
	120000	1	.4	.4	96.5
	150000	2	.8	.8	97.3
	180000	1	.4	.4	97.7
	200000	1	.4	.4	98.1
	230000	4	1.6	1.6	99.6
	250000	1	.4	.4	100.0
	Total	258	100.0	100.0	

Note: All values are in Malaysian Ringgit (MYR). Source: Based on Author's Own Calculation

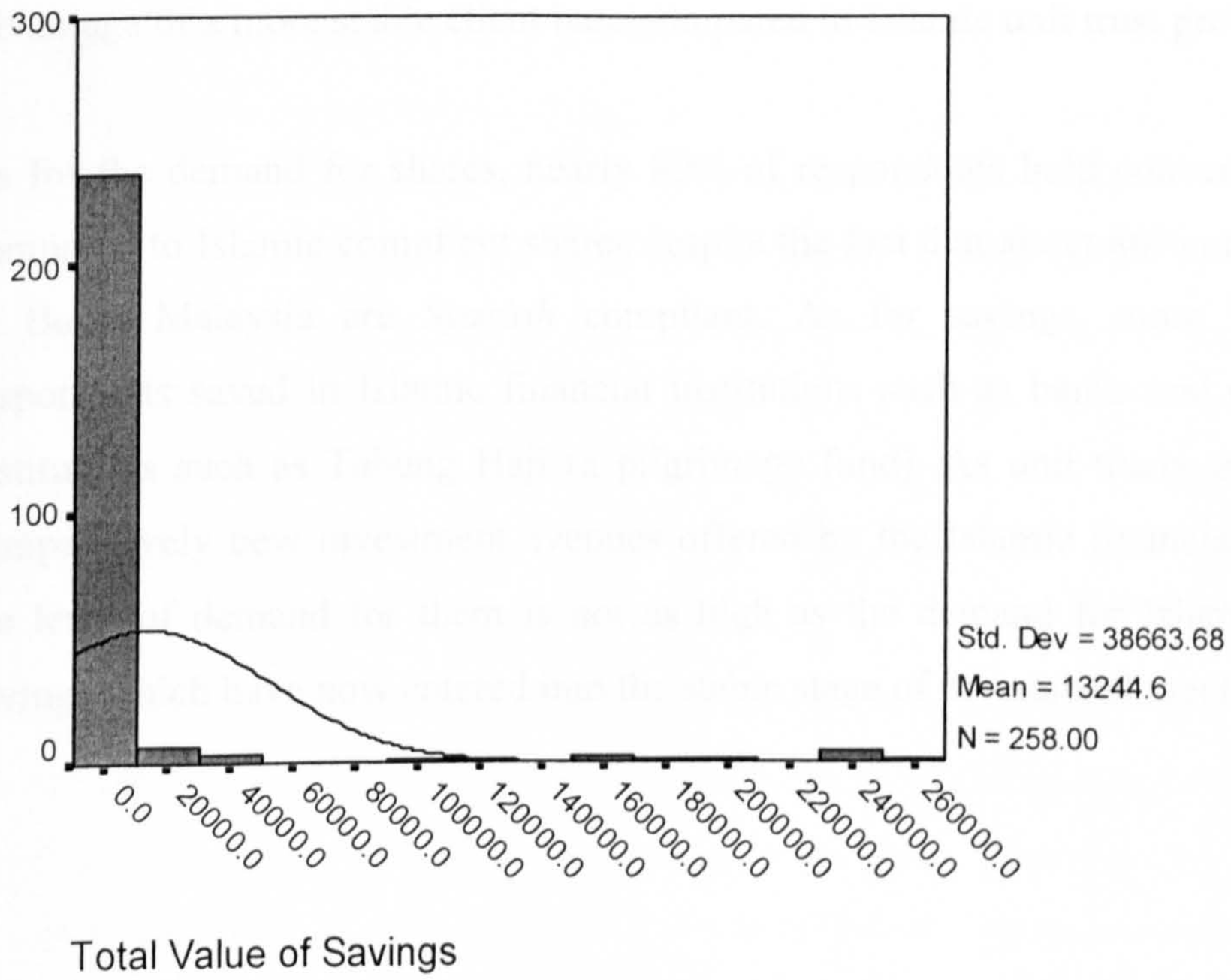

***Figure 6.3*: Total Value of Savings of Respondents**

6.2.4 Frequency Analysis on the Choice between Islamic and Conventional Financial Assets, *Syariah* Literacy, Propensity to Plan and Financial Literacy

The expansion of the Islamic banking and finance industry in Malaysia from the 1980s onwards has resulted in increased household participation in the demand for Islamic financial assets. To demonstrate the fact, we asked respondents about their choices of financial assets. Did they choose conventional financial assets or Islamic financial assets? Table 6.7 summarises the frequency and percentage of demand for Islamic and conventional unit trusts, shares and saving accounts. From the table it can be observed that 61.6% of respondents had chosen to invest in conventional unit trusts compared to the remaining 38.4% who held Islamic unit trusts. This is understandable since conventional unit trusts have been offered in Malaysia far longer than Islamic unit trusts thus giving conventional unit trust providers the advantage of a more stable client base compared to Islamic unit trust providers.

As for the demand for shares, nearly 80% of respondents hold conventional shares compared to Islamic compliant shares despite the fact that about 80% of shares listed in Bursa Malaysia are *Syariah* compliant. As for savings, more than half of respondents saved in Islamic financial institutions such as banks and other Islamic institutions such as Tabung Haji (a pilgrimage fund). As unit trusts and shares are comparatively new investment avenues offered by the Islamic financial institutions, the level of demand for them is not as high as the demand for Islamic compliant savings which have now entered into the stable stage of its establishment.

Table 6.7: Frequency and Percentage of Conventional and Islamic Unit Trusts, Shares and Savings Held by Respondents

Types of financial Assets	Frequency	Percent	Cumulative Percent
Unit trusts			
Conventional	159	61.6	61.6
Islamic	99	38.4	100.0
Shares			
Conventional	197	76.4	76.4
Islamic	61	23.6	100.00
Savings			
Conventional	124	48.1	48.1
Islamic	134	51.9	100.0

Source: Based on Author's Own Calculation

As for the variables of *Syariah* literacy, propensity to plan and financial exposure, several construct variables were designed for each of them. The construct variables are designed to measure the underlying intended concept. Ten questions in relation to respondents' knowledge and familiarity of basic Islamic finance concepts such as *riba'*, gambling and other non- permissible activities were asked. They were also asked on their level of familiarity of the people who are on the main *Syariah* board as well as on those who issue the main *Syariah* rulings. They were asked to rank their awareness and familiarity accordingly on a scale of 1 to 5 where response 1 is not familiar to response 5 is very familiar.

The respondents were asked on their propensity to plan. This refers to how concerned the household is about making financial plans. They were also asked on the planning interval of the activities. For instance, whether they planned and revised their retirement account at one, three, six or twelve month intervals. More points were awarded if they planned more often and fewer points were awarded if they do not. Four questions in total were asked on these matters.

On financial literacy, five questions were designed. The questions were devised in order to learn about respondents' perceptions of the usefulness of various sources of information such as television, radio, newspaper and magazines. They were asked on their frequency of usage of the respective information provider. Responses varied from never to great use of the information source; scale 1 for never and 5 for great use of the source information.

Table 6.8 summarises important statistics on *Syariah* literacy, the propensity to plan and financial literacy. The minimum and maximum values reported allow for the possibility of an extremely low or high response level. The lowest score for *Syariah* literacy is 10 indicating that there were incidences of one point have been scored for all ten questions. The maximum score is 50 indicating that there were one or more incidences where the maximum 5 points for a question had been scored for all ten questions. The minimum values for propensity to plan were also one point for each question and the highest is 19 points indicating that no single respondents had a perfect financial plan. The same applied to financial literacy with the minimum scores of one point of each question and no perfect score for all questions thus resulting in a score of 24 out of a possible 25 points.

The best indicator for evaluating the level of *Syariah* literacy is the value of mean and standard deviation. The mean score for *Syariah* literacy is nearly 34 points; higher by nearly 10 points to the middle value of 25 out of the possible maximum value of 50. The respondents had been given five options of response to self-report on their level of *Syariah* literacy related to specific issues. The options were poor, not very poor, moderate, good and very good. The mean value of 34 reflects that, on average, most respondents indicated that they are moderately literate on the issues related to *Syariah* compliant investment. The standard deviation for *Syariah* literacy is 8.55 reflecting that an observed value can range between 8.55 lower or higher than that of the mean value of 34.

However, the mean and standard deviation for the propensity to plan and financial literacy are not useful for measuring the performance of scores collected as each question is unique. For example, for the propensity to plan, respondents were asked on the regularity of their financial planning on various topics such as savings, retirement, and other investments. The choices of response were "weekly", "monthly", "once in 6 months", "once in a year" and "never". As each question is unique for each specific area of financial planning, the mean value and standard deviation will not to be useful to readers.

Table 6.8: Descriptive Statistics on *Syariah* Literacy, Propensity to Plan and Financial Exposures

Variables	Sample Size	Number of construct variables	Minimum	Maximum	Mean	Std. Deviation
Syariah literacy	255	10	10.00	50.00	33.6863	8.55204
Propensity to plan	256	4	4.00	19.00	13.4297	2.53194
Financial exposures	257	5	5.00	24.00	12.9144	4.25097

Source: Based on Author's Own Calculation

For each personal financial planning activity, respondents were asked to report whether they planned their activities weekly, monthly, once in 6 months, once in a year or never. The frequency of each of the financial planning activities is shown in Table 6.9.

Table 6.9: The Frequency Distribution for Several Areas of Financial Planning Activities

		Frequency	Percent	Valid Percent	Cumulative Percent
How often do you save money meant to be used in the future?					
Valid	Weekly	4	1.6	1.6	1.6
	Monthly	6	2.3	2.3	3.9
	Once in 6 months	27	10.5	10.5	14.3
	Once a year	206	79.8	79.8	94.2
	Never	15	5.8	5.8	100.0
Total		258	100.0	100.0	
How often do you monitor your income and expenditures?					
Valid	Weekly	11	4.3	4.3	4.3
	Monthly	5	1.9	1.9	6.2
	Once in 6 months	28	10.9	10.9	17.1
	Once a year	157	60.9	61.1	78.2
	Never	56	21.7	21.8	100.0
	Total	257	99.6	100.0	
Total		258	100.0		
How often do you monitor your investments?					
Valid	Weekly	31	12.0	12.1	12.1
	Monthly	35	13.6	13.7	25.8
	Once in 6 months	80	31.0	31.3	57.0
	Once a year	89	34.5	34.8	91.8
	Never	21	8.1	8.2	100.0
	Total	256	99.2	100.0	
Total		258	100.0		
How often do you monitor your retirement accounts?					
Valid	Weekly	49	19.0	19.1	19.1
	Monthly	86	33.3	33.6	52.7
	Once in 6 months	72	27.9	28.1	80.9
	Once a year	46	17.8	18.0	98.8
	Never	3	1.2	1.2	100.0
	Total	256	99.2	100.0	
Total		258	100.0		

Source: Based on Author's Own Calculation

In relation to the respondents' financial exposure, we asked them on their usage of various source of information in their financial planning and management. Their responses are summarised in Table 6.10. From their responses, it can be reported that, around 20% of respondents use a made great use of business magazines, usually used their information or moderately used their information. A small percentage of respondents reported they hardly used or never used financial information from business magazines. In contrast, a high percentage of respondents reported that they moderately used financial information from the business sections in the newspapers

(38.8%). Around 20% of them hardly use financial information from newspapers. As for the use of financial information from the television, 22.5% and 37.2% of respondents reported that they usually used or moderately used television information. A significantly low percentage (3.1%) reported that they never used television information to learn about financial planning. High percentages of 30.4%, 24.5% and 30.4% were recorded for the most regular source of information from the radio. Only around 10% reported that they never used the information from the radio. The same trends were also recorded for the use of financial information from agents working for unit trusts providers and retail banks. A high percentage of respondents reported on high use of financial information from this source of information. This observation is in line with the findings from interviews with financial planners (it will be reported in detail in Chapter 8). Many financial planners observed that householders usually perceived that information they obtained from representatives of unit trust providers or banks was adequate in order for them to make their financial decisions. According these planners, general public should not rely heavily on such information as the advice may not be independent and/or probably will not suit the financial goals of the clients.

Table 6.10: The Frequency Distribution for Respondents' Score on Their Usage of Various Source of Information on Financial Planning

		Frequency	Percent	Valid Percent	Cumulative Percent
Business magazines					
Valid	Greatly use	71	27.5	27.6	27.6
	Usually use	53	20.5	20.6	48.2
	Moderate	76	29.5	29.6	77.8
	Hardly use	44	17.1	17.1	94.9
	Never use	13	5.0	5.1	100.0
	Total	257	99.6	100.0	
Total		258	100.0		
Newspaper-business sections					
Valid	Greatly use	35	13.6	13.6	13.6
	Usually use	56	21.7	21.8	35.4
	Moderate	100	38.8	38.9	74.3
	Hardly use	52	20.2	20.2	94.6
	Never use	14	5.4	5.4	100.0
	Total	257	99.6	100.0	
Total		258	100.0		
Television programmes					
Valid	Greatly use	50	19.4	19.5	19.5
	Usually use	58	22.5	22.6	42.0
	Moderate	96	37.2	37.4	79.4
	Hardly use	45	17.4	17.5	96.9
	Never use	8	3.1	3.1	100.0
	Total	257	99.6	100.0	
Total		258	100.0		
Radio programmes					
Valid	Greatly use	78	30.2	30.4	30.4
	Usually use	63	24.4	24.5	54.9
	Moderate	78	30.2	30.4	85.2
	Hardly use	26	10.1	10.1	95.3
	Never use	12	4.7	4.7	100.0
	Total	257	99.6	100.0	
Total		258	100.0		
Representatives of financial products (e.g. shares remisiers, insurance agents)					
Valid	Greatly use	61	23.6	23.7	23.7
	Usually use	54	20.9	21.0	44.7
	Moderate	85	32.9	33.1	77.8
	Hardly use	37	14.3	14.4	92.2
	Never use	20	7.8	7.8	100.0
	Total	257	99.6	100.0	
Total		258	100.0		

Source: Based on Author's Own Calculation

6.3 The Regression Results

Multiple regression analysis is usually employed in order to distinguish how much the variation in the dependent variable can be explained by sets of independent variables of the regression. In our case, we intended to explain the variation of demand for three types of financial assets, namely unit trusts, shares and saving accounts. The regressions were modelled using the cross-sectional data collected in the months of November and December of 2005. Three regression models will be performed, one for each economic variable: income, wealth and net wealth (The full regression results based on net wealth are presented in Appendix 5). Three regression models need to be run because of the inter-connection of the three economic variables, as levels of net wealth are directly related to the level of wealth of respondents. The results of our analysis were thus presented and analysed alternately beginning with regression model (1) the demand for unit trusts in relation to income; (2) the demand for unit trusts in relation to wealth; and (3) the demand for unit trusts in relation to net wealth. The same also applied to the demand for two other assets involved in the analysis, shares and saving accounts.

This approach is following the approach of Tin (2000) when he performed regression analysis to establish the life-cycle effect on the demand for financial assets in the U.S. He argued that performing three regressions containing each of the economic variables dictated by the fact that these variables are dependent on each other. All regression results are obtained with the ordinary least square (OLS) estimation method. The use of OLS does not produce bias is results since the error term in one asset demand regression is not contemporaneously correlated with the error term in other asset demand equations. As the circumstances of his work were similar to ours, the OLS estimation method was adopted to run the regression.

To ensure the normality of the variables with exact monetary figures such as income, wealth, net wealth and the amount of financial assets held, we converted these values to natural log values. By doing so, the coefficients of income, wealth and net wealth no longer represent the exact changes of the above variables to the demand for financial assets. Taking logs means that we substituted exact figures to be represented by equivalent logged values. Having done that, the interpretation of the regression will be no longer to an exact change to both dependent and independent variables. The results, now, reflect the change in one unit of demand for financial assets due to one unit change of income, wealth or net wealth, which means change of elasticity of these variables.

Regression assumes interval data, but dichotomy variables that have two responses such as 'Yes' and 'No' or 'Male' and 'Female' can be considered a special case of interval measurement. In this study, nominal and ordinal categories were transformed into sets of dichotomies, called dummy variables. To prevent perfect multicollinearity, one category must be left out. This is usually called the base or suppress group. For instance, for the nominal variable 'gender' we treat male as the base group thus including female respondents' responses in the regression. The results in the regression will only show the results for female respondents (the non-base group), which later may be compared to observe whether significant difference between female and male (the base group) exists. It is important to remember that these results assess the significance of the difference between this category and the category that we eliminated from the analysis; that is why if one category is a control or 'normal' condition, we choose that one to eliminate.

The same approach to test for significance of categorical variables using dummy groups was also adopted in Tin (2000) on the propensity to the effect of propensity to consume and the demand for financial assets. He converted categorical variables of age, gender, marital status, level of education and job sector into dummy variables so that they can be tested in a regression model.

For the 'level of education' variable we created a set of dummy variables called Secondary School, Diploma and Master's Degree leaving out Degree/Bachelor Holder. The complete lists for all dummy variables created for the purpose of the regression may be observed in Table 6.13:

***Table 6.11*: Dummy Variables Included in the Regression**

Dummy variables	**Base/ Suppress group**	**Variables included in the regression**
Age	30-50 years	1) Less than 30 2) More than 50
Gender	Male	1) Female
Marital Status	Single	1) Married
Race	Malay	1) Non-Malay
Level of Education	Degree	1) Secondary School 2) Diploma 3) Master's Degree
Job Sector	Private	1) Self Employed 2) Government
Risk Tolerance	Bond	1) Shares
Certified Financial Planner's Engagement	Yes	1) No
Choice of Investment	Islamic	1) Conventional

Source: Author's Own

Therefore, the multiple regression function would be estimated as follows:

$$Y = a + b_1 INCOME/WEALTH/NET\ WEALTH + b_2 AGE\ LESS\ THAN\ 30 + b_3 AGE\ MORE\ THAN\ 50 + b_4 FEMALE + b_5 MARRIED + b_6 NON\text{-}MALAY + b_7 SECONDARY\ SCHOOL + b_8 DIPLOMA + b_9 MASTER'S\ DEGREE + b_{10} SELF\ EMPLOYED + b_{11} GOVERNMENT + b_{12} PREFER\ STOCKS + b_{13} DO\ NOT\ HIRE\ CFP + b_{14} CONVENTIONAL\ UNIT\ TRUSTS/SHARES/SAVING\ ACCOUNTS + b_{15} SYARIAH\ LITERACY + b_{16} FINANCIAL\ PLAN + b_{17} FINANCIAL\ LITERACY + e$$

Each proxy is described as follows;

Y = *Demand for Unit Trusts/ Shares/ Savings account*

X_1 = *Amount of income/ wealth/ net wealth of respondents*

X_2 = *Age group (AGE LESS THAN 30): dummy variable with respondents aged less than 30 being scored one (1), otherwise a zero (0).*

X_3 = *Age group (AGE MORE THAN 50): dummy variable with respondents aged more than 50 being scored a one (1), otherwise a zero (0).*

X_4 = *Gender (FEMALE): dummy variable with female respondent being scored a one (1), otherwise (0).*

X_5 = *Marital Status (MARRIED): dummy variable with respondent a married individual being scored a one (1), otherwise a zero (0).*

X_6 = *Ethnicity (NON-MALAY): dummy variable with respondent a non-Malay being scored a one (1), otherwise a zero (0).*

X_7 = *Level of Education (SECONDARY SCHOOL): dummy variable with respondent who completed Secondary school being scored a one (1), otherwise a zero (0).*

X_8 = *Level of Education (DIPLOMA): dummy variable with respondent who completed diploma education being scored a one (1), otherwise a zero (0).*

X_9 = *Level of Education (MASTER'S DEGREE): dummy variable with respondent who completed master's degree being scored a one (1), otherwise a zero (0).*

X_{10} = *Job sector (SELF-EMPLOYED): dummy variable with respondent who is a self-employed individual being scored a one (1), otherwise a zero (0).*

X_{11} = *Job sector (GOVERNMENT): dummy variable with respondent who works in government sector being scored a one (1), otherwise a zero (0).*

X_{12} = *Risk Preference (PREFER STOCKS): respondent who is a risk adverse individual being scored a one (1), otherwise a zero (0).*

X_{13} = *Certified Financial Planner's engagement (DO NOT HIRE CFP): dummy variable with respondent who do not hire certified financial planner being scored a one (1), otherwise a zero (0).*

X_{14} = *Choice of financial asset holding (UNIT TRUSTS/SHARES/ SAVING ACCOUNTS): dummy variable with respondent who prefers to hold conventional financial asset being scored a one (1), otherwise a zero (0).*

X_{15} = *Syariah literacy (SYARIAH LITERACY): the level of Syariah literacy of respondent*

X_{16} = *Financial plan (FINANCIAL PLAN): the level of propensity to plan of respondent*

X_{17} = *Financial exposure (FINANCIAL EXPOSURE): the level of financial exposure of respondent*

e = *error term generated from the regression*

6.3.1 The regression results for the demand of unit trusts

Table 6.12 provides the summary results for the regressions containing income, wealth and net wealth in relation to the demand of unit trusts. First, we may observe that the correlation of coefficients, given by R is high in all three regressions, which measures the linear association between the variables. The high R value of 0.66, 0.73 and 0.76, respectively, obtained in the three regression containing income, wealth and net wealth respectively, means that there are strong linear relationships between the dependent and independent variables in all regressions.

In the results produced, the $\overline{R}^2$ value for each regression is reasonably high. An $\overline{R}^2$ value of 0.372 in the income regression means that all the variables included in the analysis regarding income explain 37% of the variation in the demand for unit trusts. Thus nearly 60% of the variation in the demand for unit trusts containing income measurement, however, remained unexplained by the analysis. The $\overline{R}^2$ value improved to 0.478 for the regression containing wealth and 0.52 for the regression containing net wealth.

The standard error of the estimates ranging from 0.49, 0.45 and 0.43 reported in the next column of Table 6.12 reflects how much the observed y-values differ from the values on the regression line. It gives us an idea of the scatter of the points around the line of regression. We may see that the differences between the observed y-values and the value on the regression line in all three regressions are not significantly different.

To assess the overall performance of the established model, observation of F-statistics has to be made. In the case of the demand for unit trusts, a significant model for all three regressions for income, wealth and net wealth was established. All p-values denoted by "Sig." Values in the table are significant, indicating that all the models for unit trusts fit the data very well.

Table 6.12: Model Summary for the Multiple Regressions of Unit Trusts

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
Regression for income	0.66	0.44	0.37	0.49	6.620	0.000(a)
Regression for wealth	0.73	0.53	0.48	0.45	9.723	0.000(a)
Regression for net wealth	0.76	0.57	0.52	0.43	11.374	0.000(a)

Source: Based on Author's Own Calculation

a. Predictors: (Constant), financial literacy, self employed, non-Malay, age more than 50, do not hire CFP, log income/log wealth/log net wealth, conventional unit trust, master's degree, *Syariah* literacy, secondary school, married, government, prefer stocks, propensity to plan, female, diploma, age less than 30

b. Dependent Variable: log unit trust

To determine whether an individual variable included in the analysis is actually significant in explaining the variation in the demand for unit trust, the coefficient or beta of each independent variable has to be observed. On the other hand, technical terminology used to represent the value of the coefficient of a variable divided by its standard error is the t-statistics. We will report the coefficient of every variable included with its respective t-statistics. T-statistics reflect the explanation capacity of a variable in explaining the variation in the demand for unit trusts taking into account its standard error.

Table 6.13 contains the coefficients for all variables included in the three regressions for the demand of unit trusts. For all three regressions, all economic variables consist of income, wealth and net wealth. These three variables significantly drive the variation in the demand for unit trusts. This is in line with major studies performed on demand for financial assets.

Apart from economic variables, in the regression (1) containing income, other significant variables are the age variables. We established beforehand that these variables are dummy variables, in which the group of respondents in the age of 30 to 50 years was treated as the base group. With the dummy for age "less than 30" and the dummy for age "more than 50" being significant, two interpretations can be derived from the results. The first is that these two age groups significantly drive the demand for unit trusts. The second is the suggestion that significant difference between the above two age groups and the base group exists. The results thus reveal that the life-cycle pattern exists as far as the demand for unit trusts is concerned.

In the regression containing income, the conventional unit trust variable is significant. This means that the conventional unit trust variable is significant in determining the level of demand for unit trusts. There is a significant difference between respondents' preferences to acquire conventional unit trusts and Islamic unit trusts, but the relationship between the two is not an inverse relationship. In other words, we cannot establish that respondents who choose conventional assets would demand more unit trusts than those who choose Islamic financial assets.

The other significant variable is financial literacy. The sign of the coefficient is negative, in contrast to the expected positive sign. This might have been due to our questionnaire design. For financial literacy we asked the respondents to scale their frequencies from "frequently" to "never" on their usage of various information sources which were television, radio, newspaper and financial magazines. In this case, maybe their lack of usage of these media for making their financial decision hid the fact that they were using other modes of financial information provider such as advice from financial planners and so on. For the variable financial plan, the coefficient of the variable is nearly significant at 95% confidence level.

For regression (2) containing wealth, other significant variables apart from economic variables of income, wealth and net wealth are age less than 30, age more than 50, married and conventional unit trusts. In the regression containing net wealth, i.e. regression (3), other significant variables are age less than 30, age more than 50, self-employed, government and conventional unit trusts.

***Table 6.13*:** Coefficients and Statistics for All Variables for Regression Containing Income, Wealth and Net Wealth for the Demand of Unit Trusts

	Constant	Income	Wealth	Net Wealth	Age Less 30	Age More 50	Female	Married	Non-Malay	Secondary School	Diploma	Master degree	Self Employed	Government	Prefer Stocks	No CFP	Conventional Unit Trust	Syariah Literacy	Financial Plan	Financial Literacy
1	1.521 (1.77)	0.545 (3.47)*	-	-	0.412 (2.82)*	0.648 (5.70)*	-0.094 (-0.99)	-0.085 (-0.69)	-0.229 (-1.36)	0.156 (0.84)	-0.032 (-0.26)	0.105 (0.97)	-0.189 (-1.37)	-0.173 (-1.79)	-0.021 (0.23)	-0.186 (-1.15)	0.210 (2.36)*	0.003 (0.53)	0.035 (1.86)	-0.020 (-1.98)*
2	0.768 (-0.94)	-	0.876 (6.68)*	-	0.539 (4.07)*	0.516 (4.98)*	-0.086 (-1.02)	-0.230 (-2.02)*	-0.151 (-0.99)	0.102 (0.63)	-0.068 (0.63)	0.081 (0.82)	-0.219 (-1.79)	-0.137 (-1.56)	-0.034 (-0.42)	-0.093 (-0.63)	0.262 (3.33)*	0.003 (0.54)	0.011 (0.62)	-0.012 (-1.30)
3	-0.688 (-0.99)	-	-	0.875 (7.87)*	0.647 (4.97)*	0.430 (4.26)*	-0.068 (-0.83)	-0.187 (-1.74)	-0.182 (-1.25)	0.092 (0.59)	-0.016 (-0.17)	0.087 (0.93)	-0.229 (-1.95)*	-0.177 (-2.10)*	-0.077 (-0.98)	-0.125 (-0.88)	0.263 (3.48)*	0.004 (0.80)	0.010 (0.60)	-0.009 (-1.06)

Note: T-statistics are in parentheses. Source: Based on Author's Own Calculation

* Variables are significant at 5% level of confidence

6.3.2 The Regression Results for the Demand of Shares

Table 6 .14: Model Summary for the Multiple Regressions of Shares

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
Regression for income	0.700	0.489	0.374	0.45984	4.227	.000(a)
Regression for wealth	0.726	0.526	0.419	0.44280	4.905	.000(a)
Regression for net wealth	0.728	0.529	0.423	0.44143	4.962	.000(a)

Source: Based on Author's Own Calculation
a Predictors: (Constant), log net wealth, non-Malay, financial literacy, self employed, secondary school, age less than 30, *Syariah* literacy, do not hire CFP, age more than 50, master's degree, government, prefer stocks, propensity to plan, conventional shares, married, female, diploma
b. Dependent Variable: log shares

It can be observed in Table 6.14 that R-values are 0.7 and above in all regressions for the demand of shares. This means that the correlations of the independent variables with of the dependent variables are high, after all inter-correlations among independent variables have been taken into account. The adjusted R-square values for all regressions are 0.374, 0.419, and 0.423. The results suggest that nearly 40% of the variance in the demand of shares can be explained by the 17 independent variables, while in the regressions of wealth and net wealth, more than 40% of the variance in the demand for shares could be explained by all independent variables. As for the performance of all the models as a whole, all F-statistics are significant which means that the regression models for the demand of shares are statistically significant at a very high level of confidence as the data fits fairly in the regression of demand for shares.

The estimated coefficients are reported in the Table 6.15. From the table, we may observe that once again, all economic variables are significant. In the regression containing income, other significant variables are "Age more than 50", "Master's degree", "Do not hire CFP" and "Conventional shares".

On the other hand, in the regression containing wealth, other variables significantly determine the variation in the demand of shares are age more than 50, master's degree, government, do not hire CFP and conventional shares.

In the regression of net wealth, again the value of net wealth of respondents significantly affects the amount of shares demanded. On top of that, the variables of "Age more than 50", "Master's degree", "Government", "Do not hire CFP" and "Conventional shares" significantly affect the demand for shares.

Table 6.15: Coefficients and Statistics for All Variables for Regression Containing Income, Wealth and Net Wealth for the Demand of Shares

	Constant	Income	Wealth	Net Wealth	Age Less 30	Age More 50	Female	Married	Non-Malay	Secondary School	Diploma	Master Degree	Self-Employed	Government	Risk Tolerance	No CFP	Conventional Shares	Syariah Literacy	Financial Plan	Financial Literacy
1	4.032 (3.31)	0.373 (1.94)*	-	-	0.060 (0.27)	0.370 (2.68)*	-0.261 (-1.89)	-0.088 (-0.47)	-0.360 (-1.57)	0.197 (0.92)	-0.251 (-1.72)	-0.320 (-2.17)*	-0.092 (-0.60)	-0.252 (-1.96)*	0.076 (0.63)	-0.827 (-4.40)*	-0.302 (-2.12)*	-0.001 (-0.20)	-0.029 (-0.93)	0.005 (0.33)
2	2.548 (2.03)	-	0.567 (3.15)*	-	0.107 (0.50)	0.376 (2.84)*	-0.241 (-1.84)	-0.158 (-0.88)	-0.222 (-1.42)	0.082 (0.41)	-0.134 (-0.90)	-0.320 (-2.27)*	-0.096 (-0.64)	-0.258 (-2.09)*	0.028 (0.24)	-0.758 (-4.13)*	0.296 (-2.17)*	0.000 (0.05)	-0.039 (-1.32)	0.005 (0.33)
3	2.969 (2.68)	-	-	0.508 (3.23)*	0.093 (0.44)	0.334 (2.51)*	-0.224 (-1.70)	-0.179 (-1.01)	-0.346 (-1.57)	0.062 (0.31)	-0.126 (-0.85)	-0.321 (-2.29)*	-0.108 (-0.73)	-0.290 (-2.33)*	0.014 (0.12)	-0.751 (-4.11)*	-0.263 (-1.93)*	-0.001 (-0.08)	-0.034 (-1.17)	0.003 (0.21)

Note: T-statistics are in parentheses. Source: Based on Author's Own Calculation

* Variables are significant at 5% level of confidence

6.3.3 The Regression Results for the Demand of Saving Accounts

Table 6.16: Model Summary for the Multiple Regression of Saving Accounts

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
Regression for income	0.525	0.276	0.219	0.41985	4.880	0.000
Regression for wealth	0.573	0.328	0.277	0.40193	6.356	0.000
Regression for net wealth	0.590	0.348	0.298	0.39726	6.881	0.000

Source: Based on Author's Own Calculation

a Predictors: (Constant), log net wealth, government, *syariah* literacy, do not hire CFP, financial literacy, prefer stocks, diploma, female, conventional savings, self employed, non-Malay, secondary school, master's degree, married, propensity to plan, age more than 50, age less than 30

b Dependent variable: log savings

In the model summary table, we may observe that R-values of 0.52, 0.57 and 0.59 are slightly lower than previous regressions on the demand of unit trusts and shares. This means that lower correlations between independent variables and the demand for saving accounts existed compared to the demand of unit trusts and shares. The observation is also true for the adjusted R- Square values for all regressions of saving accounts. They are lower at 0.22, 0.33 and 0.35 in regressions containing income, wealth and net wealth respectively. These results show that the variation in the demand of saving accounts are explained only by percentage figures of well below 40% in all regressions. Nevertheless, the regression model is proven as a good model to explain the variation in the demand of saving accounts. This can be deducted from the result of the F-test that can be observed in the two last columns in the model summary table. The "sig." values of 0.000 for the F-test signify that the regression model fits the data appropriately.

The coefficients for every variable included in the regression for saving accounts can be observed in Table 6.17. From the table it can be observed that all economic variables are also significant as in the demand for unit trusts and shares. They are all significant in every regression of the demand for unit trusts, shares and saving

accounts. It is proven that income, wealth and net wealth are robust determinants for all types of financial assets included in the analysis.

In the regression containing income, other significant variables are age "More than 50", "Female", "Self-employed", "No CFP" and "*Syariah* literacy". The same variables significantly affect the variation of the regression of saving accounts containing wealth except for "Female" and "No CFP". The similar pattern can also be observed in the regression containing net wealth. Significant variables other than the economic variables are age "More than 50", "Female", "Self-employed" and "*Syariah* literacy". In summary, all economic variables, age "More than 50", "self-employed" and "*Syariah* literacy" are the significant variables in all three regressions of the demand for saving accounts.

Table 6.17: Coefficients and Statistics for All Variables for Regression Containing Income, Wealth and Net Wealth for the Demand of Saving Accounts

	Constant	Income	Wealth	Net Wealth	Age Less 30	Age More 50	Female	Married	Non-Malay	Secondary School	Diploma	Master degree	Self-Employed	Government	Risk Tolerance	No CFP	Conventional Savings	Syariah Literacy	Financial Plan	Financial Literacy
1	2.185 (4.02)	0.394 (4.00)*	-	-	-0.153 (-1.73)	0.340 (4.13)*	0.125 (2.01)*	-0.026 (-0.30)	-0.135 (-1.19)	0.056 (0.50)	-0.054 (-0.72)	-0.094 (-1.21)	0.223 (2.26)*	-0.004 (-0.06)	-0.050 (-0.83)	-0.229 (-1.97)*	-0.076 (-1.29)	0.012 (3.24)*	-0.003 (-0.27)	-0.007 (-1.05)
2	0.896 (1.50)	-	0.560 (5.88)*	-	-0.340 (-0.38)	0.275 (3.50)*	0.119 (2.03)*	-0.126 (-1.49)	-0.089 (-0.82)	0.042 (0.41)	-0.048 (-0.70)	-0.102 (-1.38)	0.190 (2.06)*	2.556E -05 (0.00)	-0.058 (-1.00)	-0.148 (-1.31)	-0.057 (-1.00)	0.011 (3.27)*	-0.013 (-1.07)	-0.004 (-0.62)
3	1.076 (2.05)	-	-	0.546 (6.45)*	0.029 (0.32)	0.224 (2.84)*	0.124 (2.14)*	-0.107 (-1.27)	-0.097 (-0.91)	0.034 (0.33)	-0.027 (-0.39)	-0.110 (-1.49)	0.202 (2.22)*	-0.019 (-0.31)	-0.084 (-1.46)	-0.194 (-1.75)	-0.056 (-0.98)	0.012 (3.49)*	-0.014 (-1.16)	-0.003 (-0.46)

Note: T-statistics are in parentheses. Source: Based on Author's Own Calculation

* Variables are significant at 5% level of confidence

6.4 Diagnostic Tests to Multiple Regression Analysis

The correct use of the coefficient of regression depends heavily on the assumptions made with respect to the nature of data to be regressed and on understanding the principles of forming the regression. Regression is a central measure within the general linear model of statistics. However, in situations where its assumptions are violated, regression becomes inadequate to explain a given relationship. To the extent that any of these assumptions are violated, the coefficient of regression does not correctly reflect the relationship. In Dielman (2000), a chapter on how to assess the assumptions of the regression is outlined. According to him, the ideal conditions for the estimation and inference in the multiple regression models are as follows:

a) The expected values of the disturbances are zero. When this is the case, it indicates that the relationship is linear in the explanatory variables (with the dependent variables). If this property is met, then the use of multiple regression analysis is justified.
b) The disturbances have a constant variance. In residual plot residuals versus an explanatory variable, the residuals should appear scattered randomly about the zero line with no differences in the amount of variation in the explanatory variable.
c) The disturbances are normally distributed. This can be assessed using the tests of normality of Kolmogorov-Smirnov or Shapiro-Wilk. Normal probability plots also can be used for the matter
d) There is no autocorrelation between disturbances. This means that disturbances are independent of each other. To examine that this assumption had been met, the Durbin Watson test can be used when researchers are using time series data in their research. The test is not applicable when researchers are using the cross-sectional data.
e) The explanatory variables are not highly correlated. In order to correctly infer sample estimates to the population, explanatory variables should not appear dependent or correlated between each

other. If this condition can not be met, then the inferences using sets of explanatory variables have to be re-examined by dropping the correlated variables.

Following Dielman's (2000) recommendations for using tests and plots, we assessed all the assumptions of the multiple regression analysis used in our study. Assumptions a) through c) relate to the residuals of the regression and assumptions e) relates to the explanatory variables of the regression. SPSS package, only allow for diagnostic tests to be performed in the manner of using plots with no facilities for statistical tests. We therefore used plots to demonstrate that all assumptions for multiple regressions were met.

Assumption 1: Linearity of Residuals

Three regression models were tested containing income, wealth and net wealth for all three types of financial assets tested in the regression analysis. Therefore, scatter plots for residuals for regressions containing income, wealth and net wealth for all three types of variables had to be examined. Upon examination of the regression results for all types of financial assets above, the regression containing net wealth were the best models with the highest R-square values. Thus, we observed the scatter for log net wealth variable versus dependent variables of demand for unit trusts, shares and saving accounts in this section. By definition, for linearity of residuals to exist, scatter plots of residuals against standardised predicted values in the regression for unit trust, shares and savings should not reveal a clear relationship i.e. they generate random patterns.

The three scatter plots presented below reveal no clear relationship between residuals and predicted values that indicate that the regression line passes through the conditional means of dependent variable. In short, the regression is linear in the explanatory variable. The observations in diagrams 6.1 to 6.3 are consistent

with the assumption of linearity between all variables and the dependent variable[47]

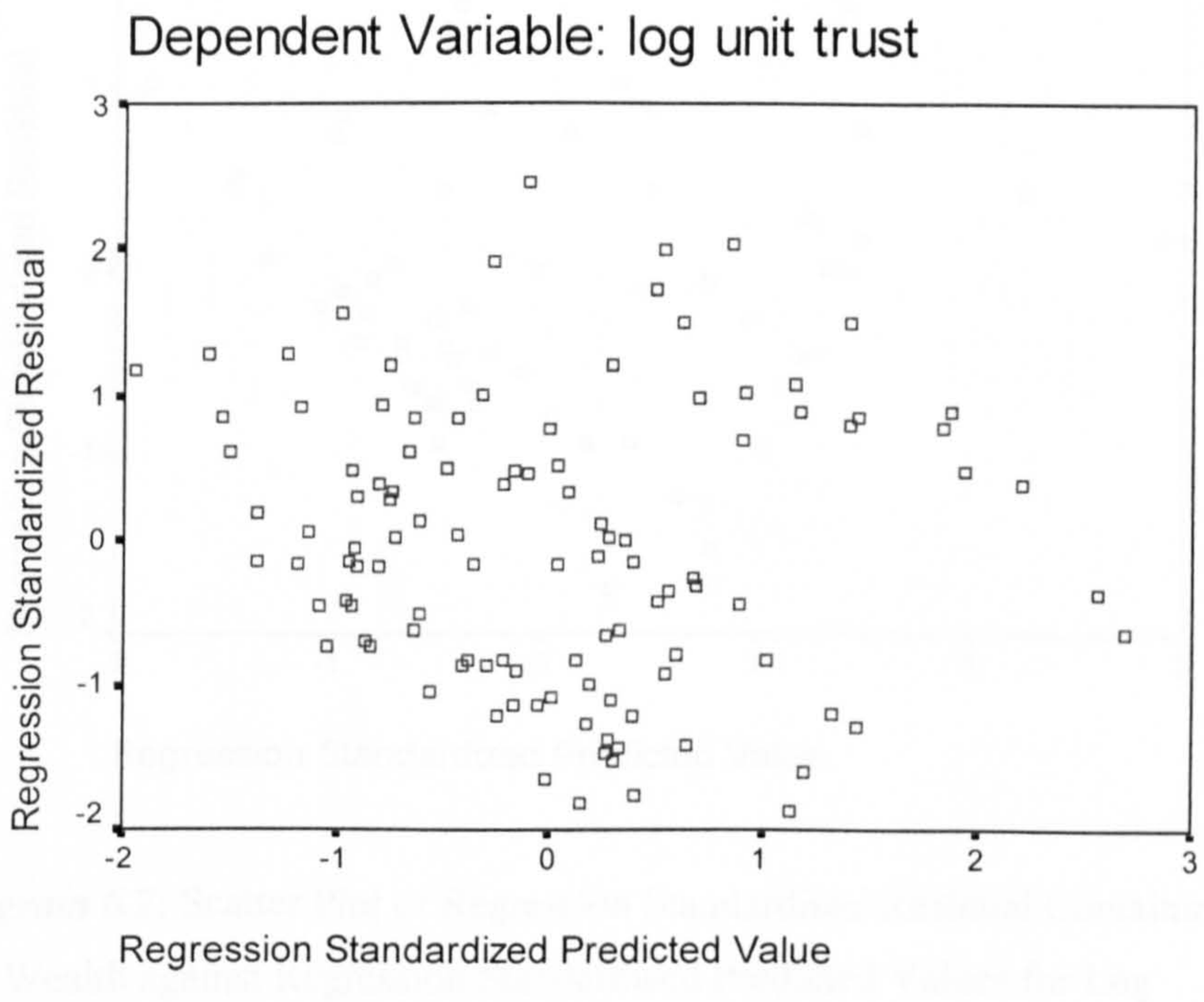

Diagram 6.1: Scatter Plot of Regression Standardised Residual Containing Net Wealth against Regression Standardised Predicted Values for Log Unit Trust

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[47] See Coakes S.J, Steed L.G (2003). SPSS: Analysis Without Anguish Version 11.0 for Windows, John Wiley and Sons Australia Ltd.

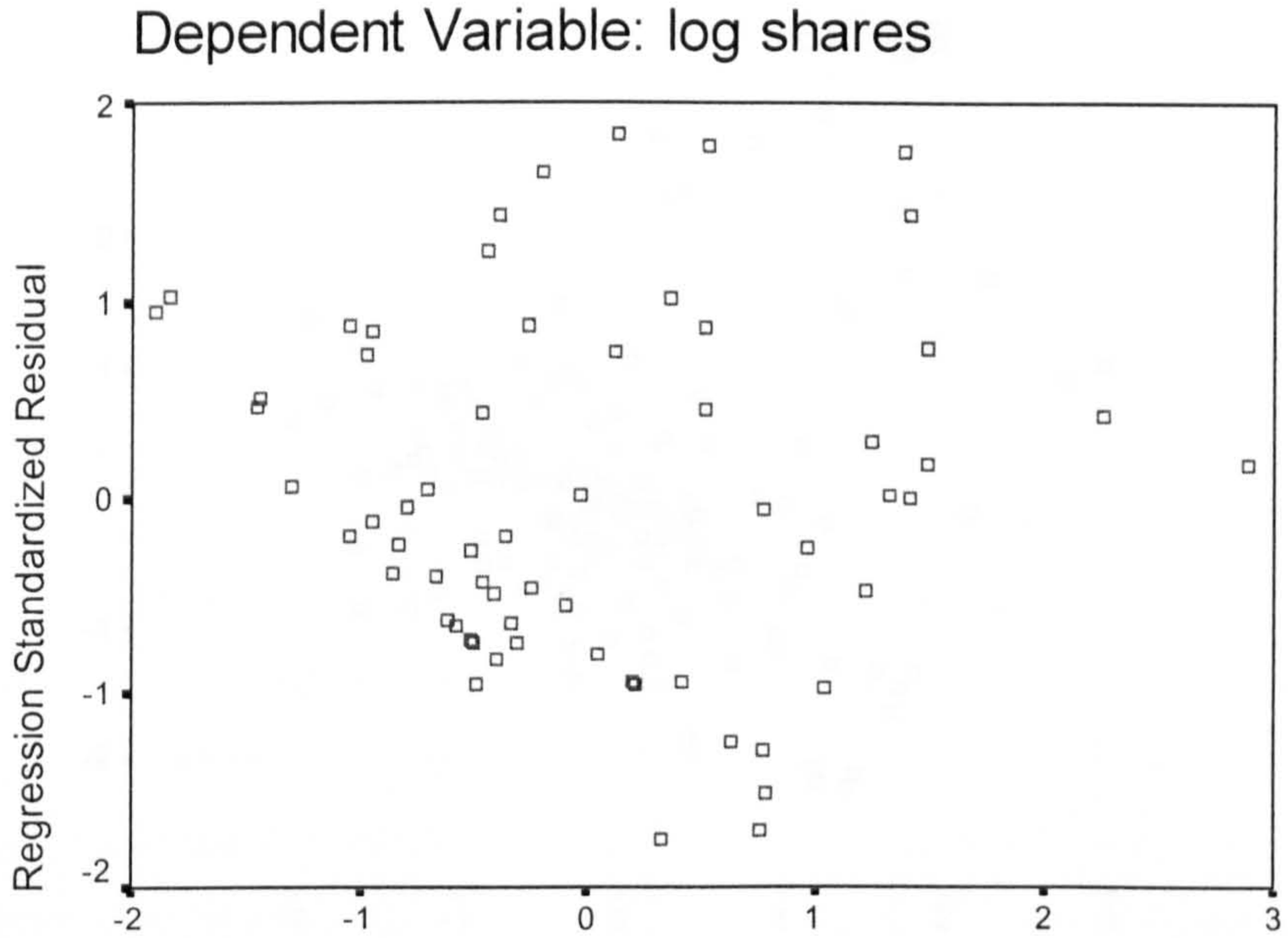

***Diagram 6.2*:** Scatter Plot of Regression Standardised Residual Containing Net Wealth against Regression Standardised Predicted Values for Log Shares

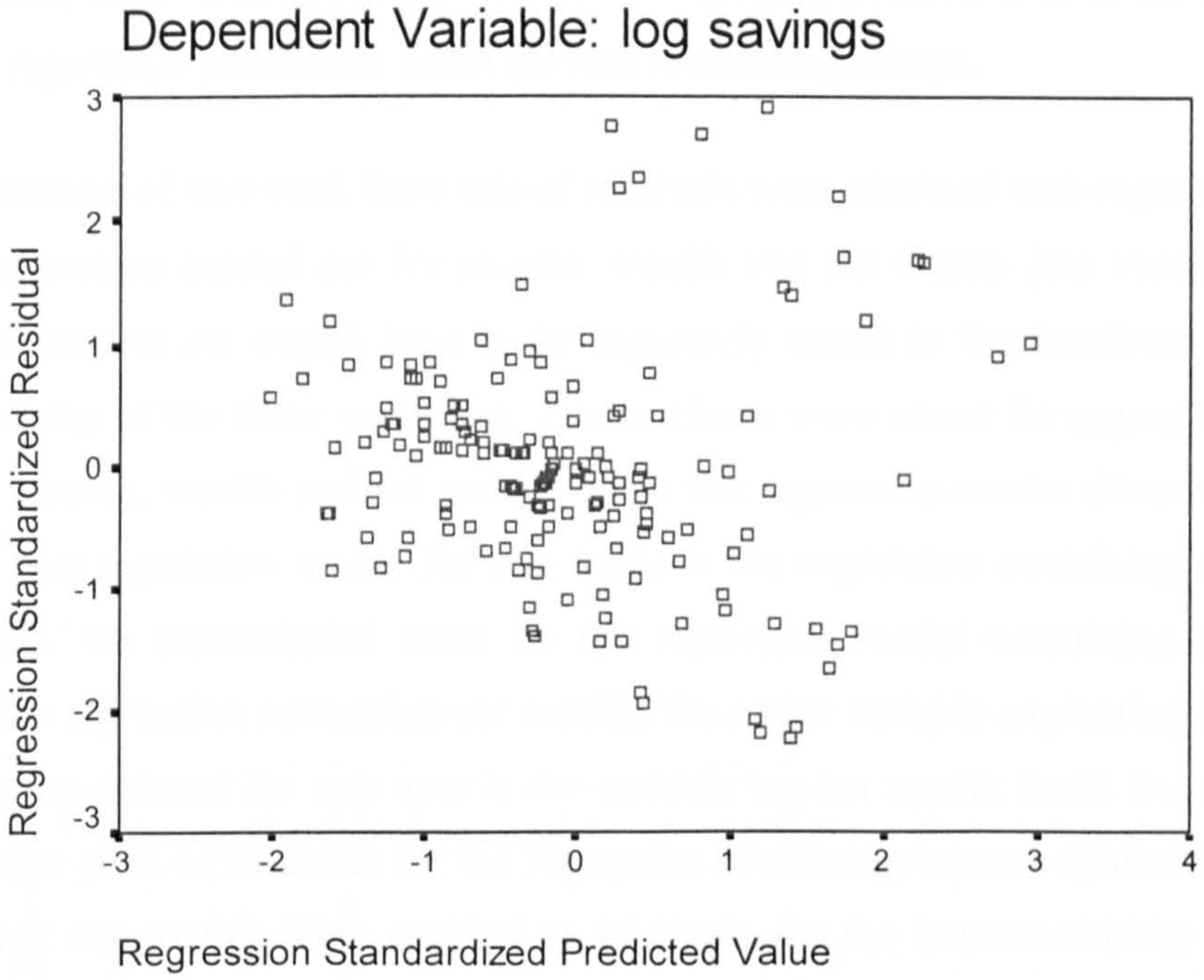

***Diagram 6.3*:** Scatter Plot of Regression Standardised Residual Containing Net Wealth against Regression Standardised Predicted Values for Log Savings

Assumption 2: Constant Variances of Disturbances

To check whether the variance of the disturbances is constant for all values of explanatory variables, scatter plots of residuals versus explanatory or independent variables can be performed. In this case, we presented a scatter plot of residuals plotted against major independent variables such as income, wealth and net wealth. The residuals should appear scattered randomly about the zero line with no differences in the amount of variation in income, wealth and net wealth. When the disturbance variance is not constant, the use of the least-squares method has two major drawbacks. The estimates of the regression coefficients are no longer minimum variance and the estimates of the standard errors are biased. The first drawback suggests that estimates of the coefficients with smaller sampling

variability may exist. Because of the second drawback, hypothesis tests about the population regression parameters could provide misleading results.

For the regression of unit trust, three sets of residuals were obtained with regard to separate regressions carried out for income, wealth and net wealth (the variable income, wealth and net wealth have to be separately tested to the incidence of multicollinearity of the three variables). The residuals were saved for regression containing income, wealth and net wealth. From the regression results discussed above, the best regression model for unit trusts is the regression containing net wealth. Thus, we concentrated more on the regression model containing net wealth. In the regression containing net wealth, the major variable explaining the variation in the demand for unit trust is the variable log net wealth itself. So, we present scatter plots of residuals for the regression containing income against the values of log net wealth. This enabled us to check for the homoscedascity of variance of residuals in the regression containing net wealth for all values of log net wealth of respondents.

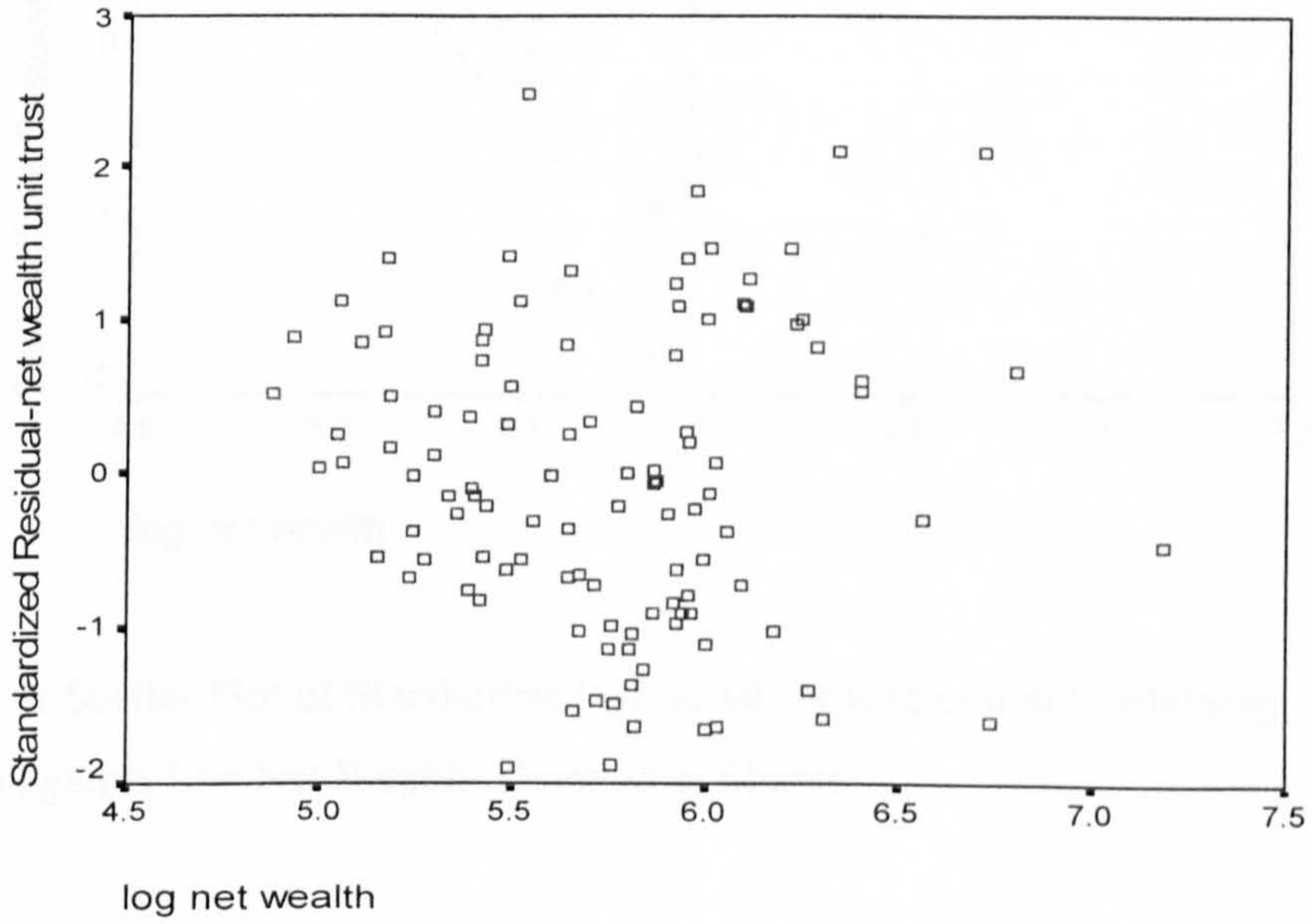

Diagram 6.4: Scatter Plot of Standardised Residual for Regression Containing Net Wealth against Log Net Wealth- Demand of Unit Trust

The observation from the scatter plots above indicated that heterogeneous variance of residuals had been produced for all values of net wealth of respondents.

Similarly, the best regression model for the demand of shares is the regression containing net wealth. Thus, to check for homoscedascity of variance of residuals for all values of explanatory variables, scatter diagram of residuals against net wealth values are presented in the Diagram 6.5.

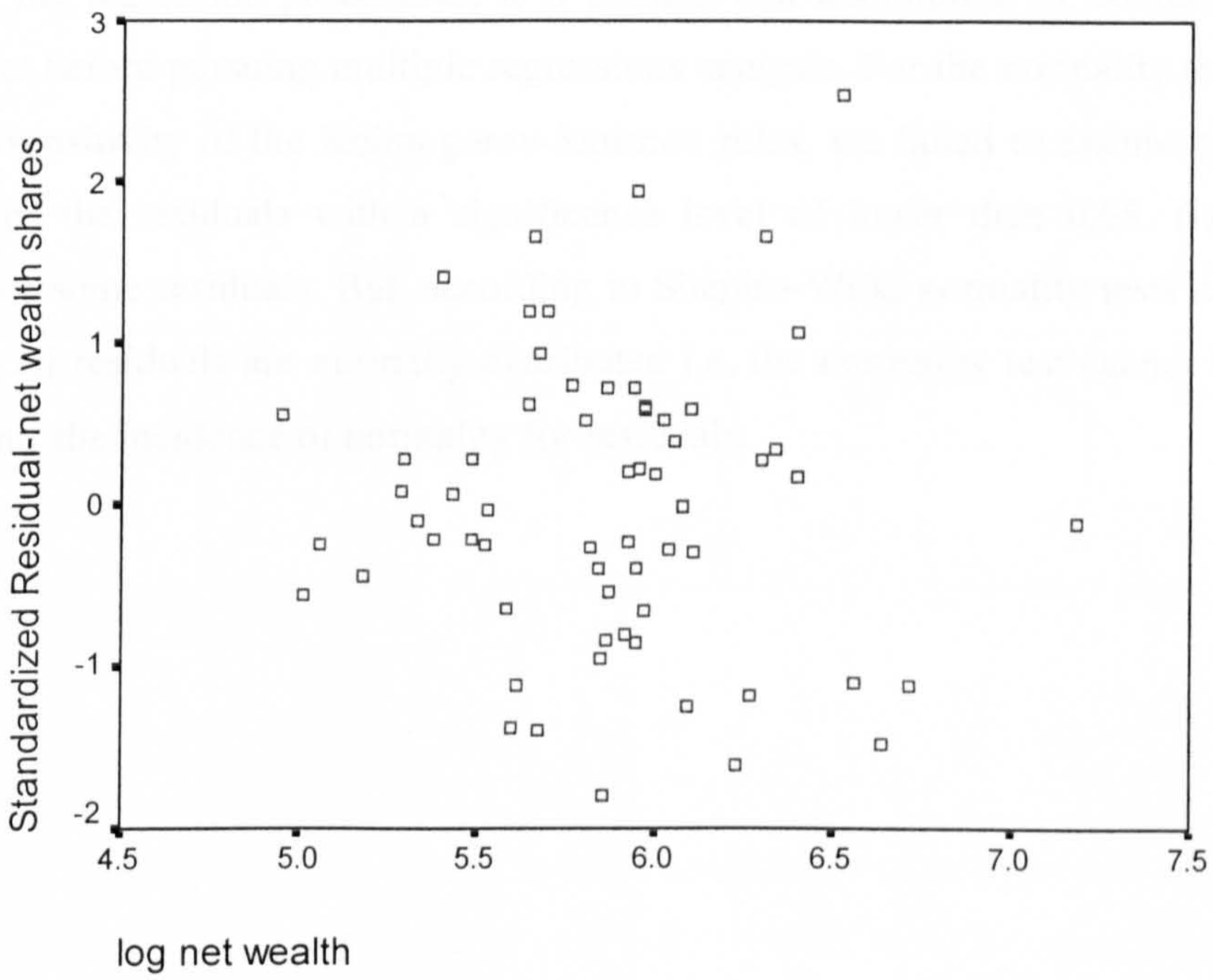

***Diagram 6.5*:** Scatter Plot of Standardised Residual for Regression Containing Net Wealth against Log Net Wealth- Demand of Shares

Upon inspection of the above diagram, we concluded that homoscedascity of variance of residuals for all values of log net wealth of respondents had not been assured. When this happens, standard errors of estimates tend to be higher and

more volatile. Since we have the problem of unequal variances, we tested for the robustness of t-statistics using the EVIEWS software under the Newey-West test. The test calculated the t-statistics taking into account the higher volatility of standard errors. From the examination, it was found that the regression models are robust, i.e. the results from the robust regression are about the same as in our original regression model.

Assumption 3: Normality of Disturbances

As part of the regression procedures, it is prudent that assumption of normality must be met before pursuing multiple regressions analysis. For the normality test, due to the sensitivity of the Kolmogorov-Smirnov rules, we failed to assume the normality of the residuals with a significance level of lower than 0.05. (i.e., p=0.008) for some residuals. But, according to Shapiro-Wilk, normality tests can reveal that all residuals are normally distributed i.e. the normality test cannot be rejected, thus the incidence of normality for residuals.

Table 6.18: Results for Normality Test of Residual

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardised residual- income unit trust	.094	68	.200(*)	.980	68	.352
Standardised residual- wealth unit trust	.100	68	.092	.972	68	.127
Standardised residual-net wealth unit trust	.084	68	.200(*)	.980	68	.336
Standardised residual-income shares	.103	68	.070	.964	68	.049
Standardised residual-wealth shares	.097	68	.190	.985	68	.566
Standardised residual-net wealth shares	.090	68	.200(*)	.982	68	.445
Standardised residual-income savings	.128	68	.007	.939	68	.002
Standardised residual- wealth savings	.121	68	.015	.944	68	.004
Standardised residual-net wealth savings	.138	68	.003	.956	68	.018

* This is a lower bound of the true significance.
a Lilliefors Significance Correction
Source: Author's Own

Plots for standardised residuals for dependent variables are also presented using the Normal Q-Q approach. Diagrams 6.7, 6.8 and 6.9 show that most of residuals generated from the regression lie on a right upward-sloping straight line. This is to represent that the normality of residuals is ensured.

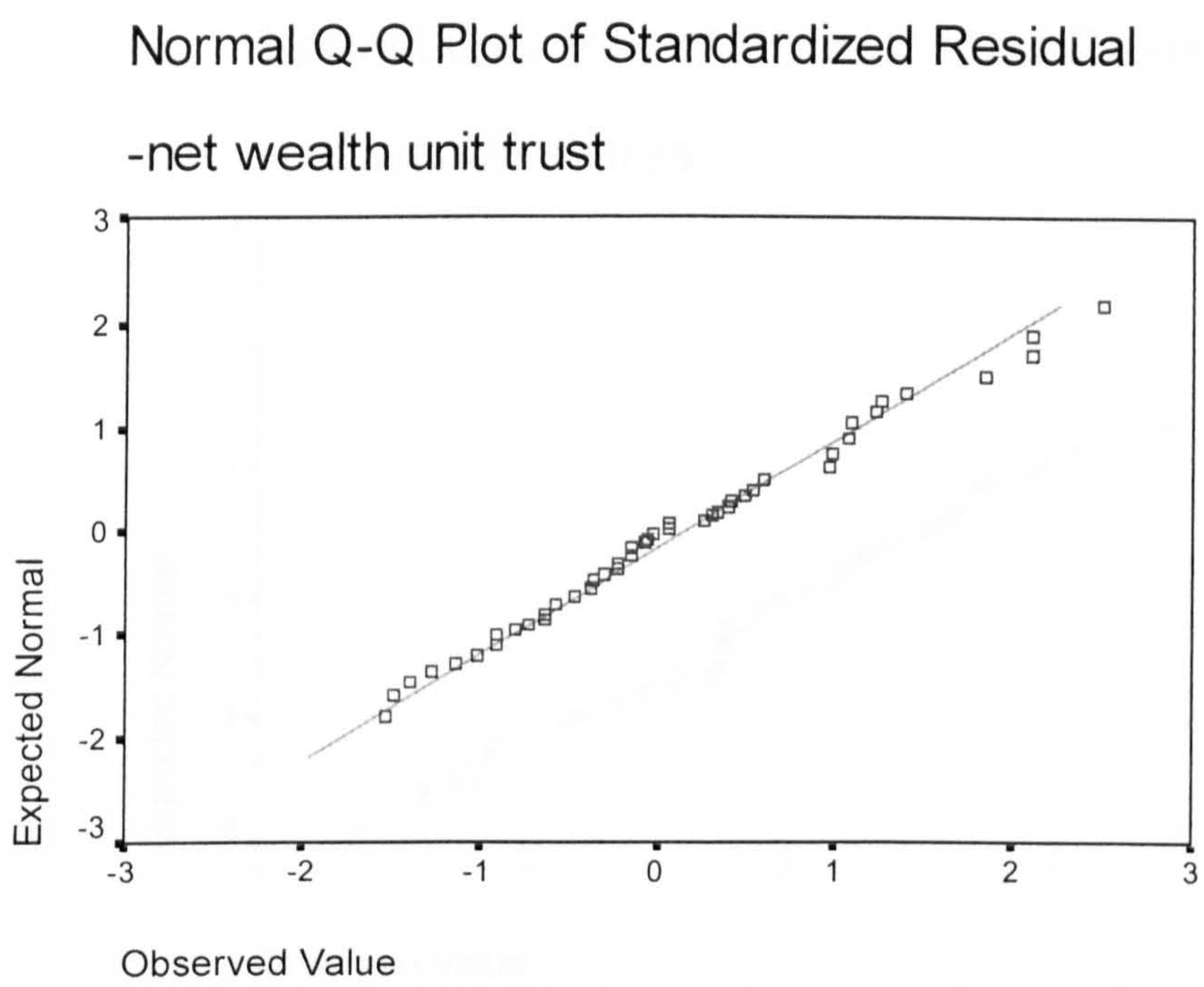

***Diagram 6.7*:** Normal Q-Q Plot of Standardised Residual for the Regression Containing Net Wealth in the Regression of Unit Trusts

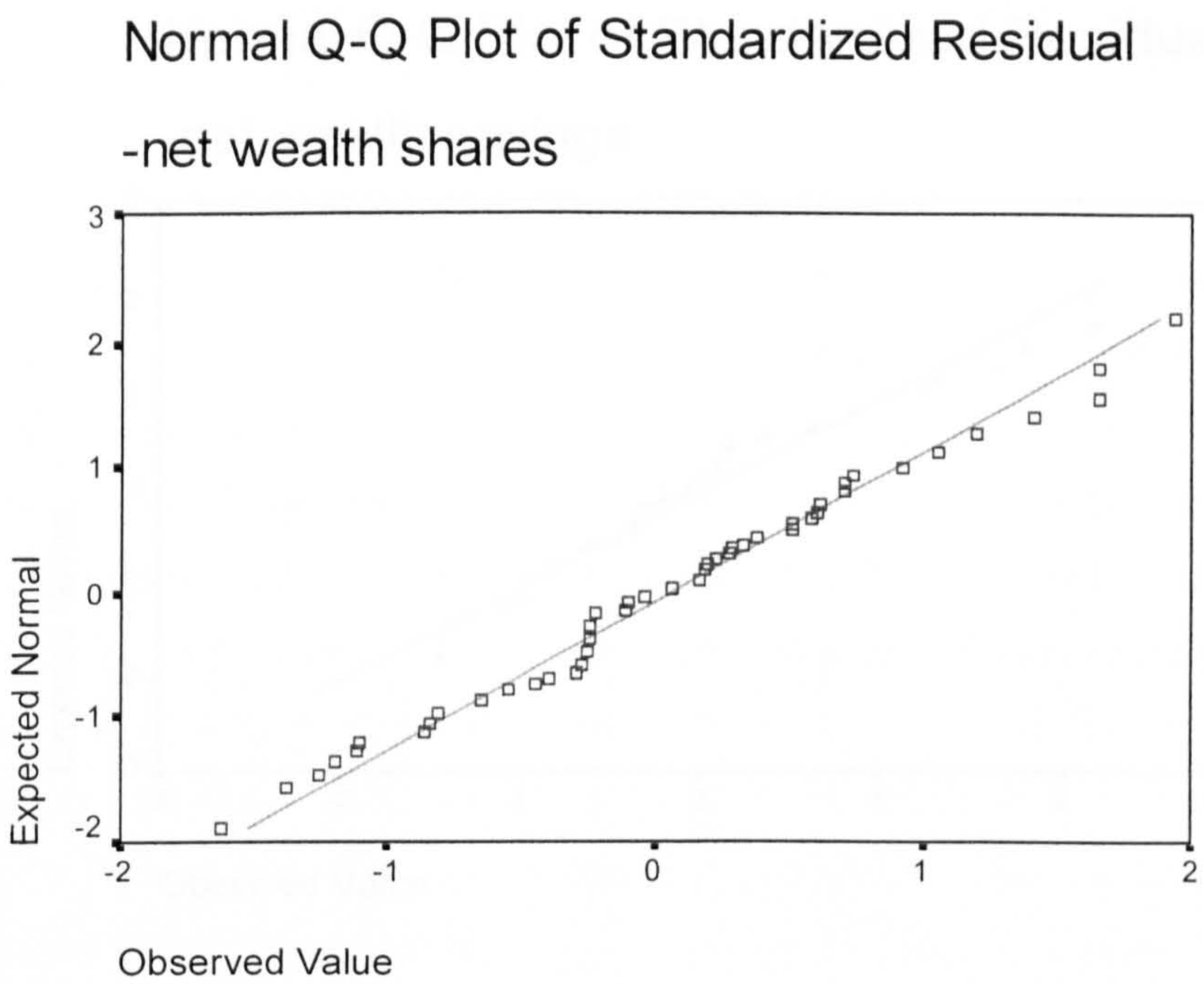

***Diagram 6.8*:** Normal Q-Q Plot of Standardised Residual for the Regression Containing Net Wealth in the Regression of Shares

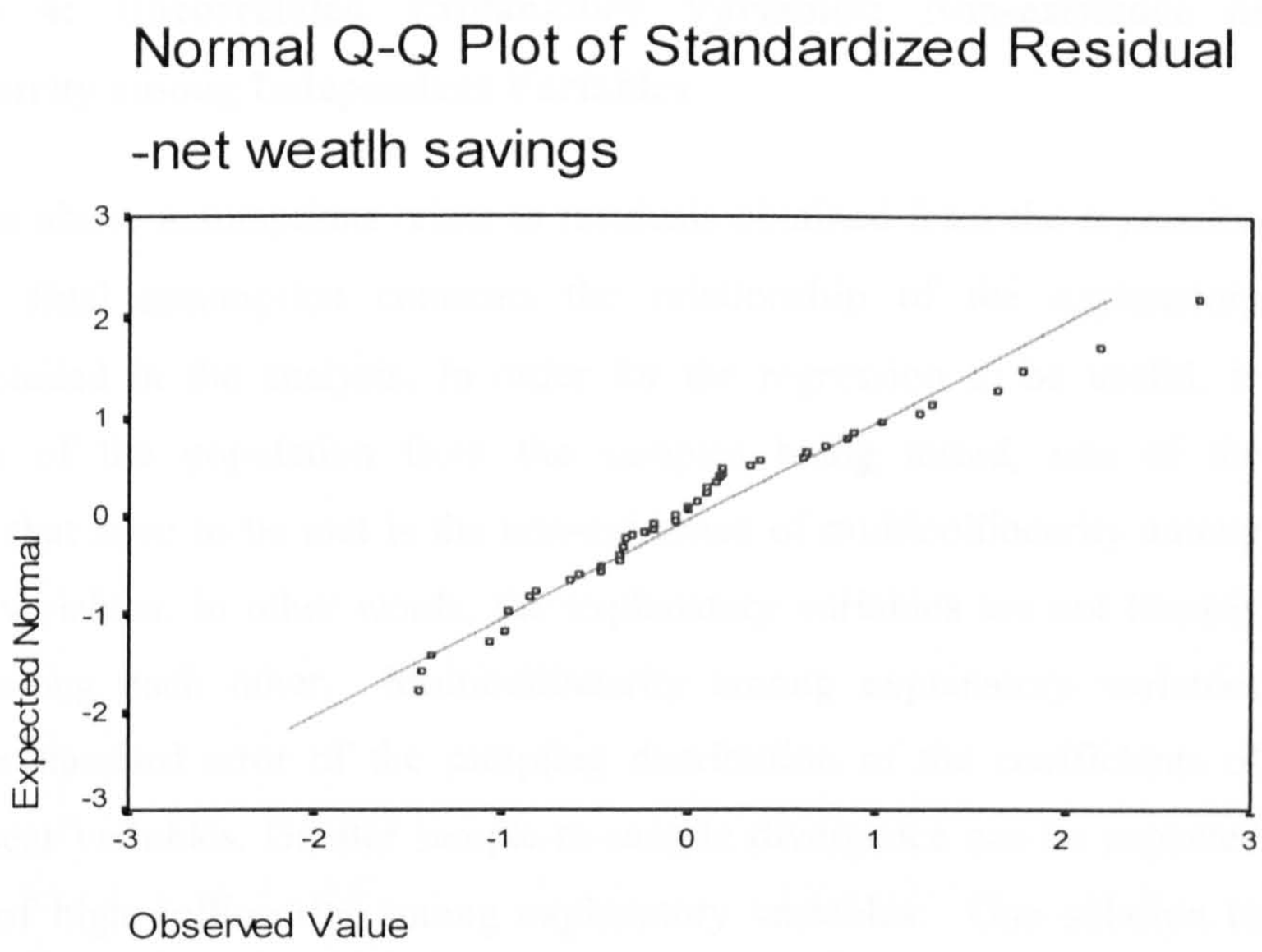

***Diagram 6.9*:** Normal Q-Q Plot of Standardised Residual for the Regression Containing Net Wealth in the Regression of Saving Accounts

In addition to normal probability plots for standardised residuals generated from the regressions, we also have to make sure that the dependent variables are also normally distributed. Normal probability plots have to be performed to inspect the distribution of the dependent variable. Our results showed that normal distribution is indeed ensured, where the cases fall more or less in the straight line (See Appendix 6).

Assumption 4: Uncorrelated Explanatory Variables; Non-existence of Multicollinearity among Independent Variables

Whilst all the above assumptions relate to residuals obtained from the regression models, the final assumption concerns the relationship of the explanatory variables included in the analysis. In order for the regression to be useful, to reflect more of the population from the samples being tested, one of the assumptions that have to be met is the non-existence of multicollinearity among explanatory variables. In other words, the explanatory variables are not linearly correlated among each other. Multicollinearity among explanatory variables increases the standard error of the sampling distribution of the coefficients of highly collinear variables. Greater sample-to-sample divergence can be expected in the case of high collinearity among explanatory variables. One solution to multicollinearity problem is to drop the highly or perfectly collinear variables. But this poses another problem of model inadequacy. Perhaps, if the collinearity of variables is not serious, it is better not to drop the problematic variables from the regression. This is because multicollinearity does not violate the OLS parameter estimation process although it causes a substantial decrease in "statistical power" for the reason stated above.

In this study, the Pair-wise Correlation Analysis was conducted for the independent variables to determine the existence of any multicollinearity problem in the model (Refer to Appendix 7). From the appendix we may observe that multicollinearity among explanatory variables is not serious. Serious correlation among economic income, wealth and net wealth could be expected. This justifies the decision to run three separate regressions containing income, wealth and net wealth for every type of financial asset. Other than that, collinearity among explanatory variables is negligible. Highly correlated variables such as income and number of years in education are justifiable in the economic context.

6.5 Conclusion

In this chapter, we have discussed the respondents' profiles such as their demographic and financial background. Extensive descriptive statistics have been provided as a preliminary analysis to the actual regression analysis. The regression results obtained indicate that the variables that are affecting the level of demand for unit trusts are net wealth, age, type of employment, conventional unit trusts and financial literacy. With regard to the level of demand for shares, the significant variables affecting its level of demand are net wealth, age more than 50, female, master's degree, government sector employee, household without engagement with certified financial planner and conventional shares. Finally, with regard to the demand for savings, the significant variables affecting the level of demand are net wealth, age more than 50, female, private sector employee and *Syariah* literacy.

The results specify that the age factor is important in estimating the level of demand for financial assets in Malaysia. For unit trusts, significant levels of demand exist for all three groups of age while for the demand for shares and savings, significant differences only exist between household aged between 30 to 50 and those who are more than 50 years old. This shows that older householders have more shares and savings than the younger. In contrast, the significance of all three age groups indicates that unit trusts are more popular as saving and investment avenues in Malaysia. This is due to the fact that certain units are guaranteed by the government such as the Permodalan Nasional Berhad (PNB) unit trusts which serve the purpose of savings rather than investment.

As predicted, the level of *Syariah* literacy affects the level of demand for savings as Islamic banks had long been established before other investment avenues such as unit trusts and shares. Female householders, as reported demand all three types of financial assets in a different manner from that of their male counterparts.

In the chapter, we have also provided the tests and plots to examine that all assumptions for multiple regression analysis have been confirmed with. We particularly examined that the expected values of disturbances are zero. This was to check for linearity of relationships between variables and hence multiple regressions can be performed. In addition, the disturbances have to have constant variance, normally distributed, and do not correlate with each other. Finally, the selected predictor variables have to be independent among each other so that correlations among the variables can be checked.

CHAPTER 7

DISCUSSIONS OF THE RESULTS FOR THE MULTIPLE REGRESSION ANALYSIS ON THE DEMAND FOR FINANCIAL ASSETS

7.1 Introduction and Background of the Research Analysis

The central aim of the research is to find factors that are able to explain the variation in the demand for financial assets. They are the demand for unit trusts, shares and saving accounts. Multiple independent variables were been selected in the light of theoretical and empirical findings. They were subsequently tested using multiple regression analysis to ascertain whether they significantly affect the demand for the respective financial assets. Similar regression models had been adopted by Tin (1998), Ioannides (1992) and Poterba and Samwick (1997) on the-life cycle effect upon the demand for financial assets.

Tin (1998), studied the demand for ten (10) types of financial assets to establish important factors affecting their demand. They were (1) regular or passbook savings accounts in banks, (2) money market deposit accounts, (3) certificates of deposits or other savings certificates, (4) NOW or Super NOW accounts[48] or other interest-earning savings accounts, (5) money market funds, (6) U.S government securities, (7) municipal or corporate bonds, (8) other interest-earning assets, (9) stocks and mutual fund shares, and (10) no interest-earning checking accounts.

Tin (1998) broke up saving and current account as well as deposits into specific products available in the American market. In our case, we considered saving and current accounts as in the same category of deposit. In relation to stocks and mutual fund shares, Tin grouped them in the same category. Risk and return characteristics motivated other authors such as King and Leape (1984) to combine

[48] Negotiable Order of Withdrawal (NOW) account is interest-earning bank account where customers are allowed to write drafts against money held on deposit. A Super NOW account is the enhanced version of the NOW account. Depositors are awarded higher interest rates than on a NOW account, but lower than a money market account.

both types of assets in their analysis. We, on the other hand have analysed them separately due to distinct regulations and the investment atmosphere surrounding them. Malaysian authorities, over the years, have been encouraging the public to invest in unit trusts using various means including tax credits on unit trust investments. Changes to the retirement fund account of Employee Provident Funds (EPF) were also been made to encourage participants of the retirement fund to invest in unit trusts.[49]

We did not include the demand for bonds in our analysis, as government bonds and corporate bonds are not the types of instruments that are usually demanded by householders but by institutional investors such as banks, insurance companies and unit trusts management companies. The same goes for certificates of deposit and other types of money market deposits as our preliminary field study revealed that numbers of householders actually owning them are minimal.

In a similar study, King and Leape (1984) examined on wealth and portfolio composition. They partly dealt with the issue of wealth elasticity of demand for various types of assets. They included financial assets such as checking accounts, corporate equity and taxable bonds and non-financial assets such as owner-occupied housing in their research. Apart from examining wealth, King and Leape included other explanatory variables such as employment income, net wealth, marginal tax rates, age of the head of household, marital status, occupation, education, employment status and the subjective perception of risk aversion.

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[49] Every employed individual is obliged to participate in an employee contribution fund (EPF) which is managed by Kumpulan Simpanan Wang Pekerja (KWSP). KWSP is a governmental body managing employee funds. The organization collects, manages, invests and provides sums of participant's contribution in the event of retirement. A participant's contribution is divided into 4 accounts which can only be used for the purpose for which the account is created. With effect from 1 November 1994, generally funds in Account (1) are accumulated for the purpose of retirement. Account (2) can be used to finance house building or purchase and Account (3) is allocated to provide for health expenses. 60%, 30% and 10% of the participant's monthly contributions are allocated in Account (1), (2) and (3) respectively. Furthermore, the use of contributions in Account (1) has been extended for the participant to invest in unit trusts if their balance in the account is more than RM55, 000.

Our regression model takes into account the economic and demographic variables as in King and Leape (1984), Tin (1998) Hall and Mishkin (1982), Zeldes (1989), and Lusardi (1996), among others. In addition, we examined the effect of other variables such as household's preferences for either Islamic or conventional financial assets, risk preferences, and levels of *Syariah* literacy. The level of financial literacy and financial planning is also tested following the research which has been done by Ameriks *et al.* (2002). Another aspect taken into account in our research is the effect of the personal financial planner's involvement in structuring a household's portfolio. This has had been analysed by Ioannide (1992). In our case, we particularly examined whether the involvement of certified financial planners in household financial affairs would affect the level of demand for financial assets.

Following King and Leape (1984), no consideration has been made to include rates of returns or interest rates in our analysis on the demand for assets. Although many other researchers such Tin (1998) and Hamburger (1968) considered rates of return for financial assets in their analysis as a possible determining factor, we have only examined the effect of micro factors directly related to householders such as the demographic variables: ethnicity, age, marital status; the socio-demographic variables: educational level, employment status as well as the economic variables: income, wealth and net wealth.

7.2 The Discussion of the Results

In the light of the results obtained from our multiple regression analysis, we have discussed the effect of selected variables upon the demand for chosen financial assets. Variables in the same category such as secondary school, diploma and master's degree that belong to the category of educational level will only be meaningful if they are discussed jointly. This is also true for age variables. Age less than 30 and age more than 50 are tested against the base group of age between 30 and 50. The results for these variables are discussed jointly under the

life-cycle category. Basically, the discussion of results is based on the established dummy groupings. Table 6.11 from the previous chapter is reproduced to illustrate the groupings of the variables.

Table 6.11: Lists of Dummy Variables Used in the Regression Analysis

Dummy variables	**Base/ Suppress group**	**Variables included in the regression**
Age	30-50 years	1) Less than 30 2) More than 50
Gender	Male	1) Female
Marital Status	Single	1) Married
Ethnicity	Malay	1) Non-Malay
Level of Education	Degree	1) Secondary School 2) Diploma 3) Master's Degree
Job Sector	Private	1) Self Employed 2) Government
Risk Tolerance	Bond	1) Shares
Certified Financial Planner's Engagement	Yes	1) No
Choice of Investment	Islamic	1) Conventional

Source: Author's Own

The full regression model tested in our research is as follows:

Log m_t= a+ β_1 log w_t+ β_2 Age less than 30 + β_3 Age more than 50 + β_4 Female + β_5 Married + β_6 Non-Malay + β_7 Secondary School + β_8 Diploma + β_9 Master's Degree + β_{10} Self Employed + β_{11}Government + β_{12} Prefer Stocks+ β_{13} Do Not Hire CFP+ β_{14} Conventional Unit Trusts/Shares/Saving Accounts + β_{15} *Syariah* Literacy+ β_{16} Financial Plan+ β_{17} Financial Literacy+ e

Although we have a lengthy list of variables included in our model, our analysis mainly surrounds ten (10) major variables. They are economic factors, life-cycle factor, demographic factors, socio-economic factors, risk tolerance level, certified financial planner's involvement, householders' preferences between Islamic and conventional assets, *Syariah* literacy financial plan and financial literacy.

Upon our analysis, we found that net wealth is the variable with the highest R-Squared values for all types of financial assets. For that reason, we have made much use of the results generated from the regression that contains net wealth in order to discuss more on the level of demand for financial assets. The summary of the coefficients for the regression results in the regression containing net wealth for the demand of unit trusts, shares and saving accounts is reported in Table 7.1.

Table 7.1: Summary of the Coefficients of Variables Included in the Regression for All Financial Assets

Variables	Unit trusts	Shares	Saving accounts
X_1: Net Wealth	0.875*	0.508*	0.546*
X_2: Age less than 30	0.647*	0.093	0.029
X_3: Age more than 50	0.430*	0.334*	0.224*
X_4: Female	-0.068	-0.224*	0.124*
X_5: Married	-0.187	-0.179	-0.107
X_6: Non-Malay	-0.182	-0.346	-0.097
X_7: Secondary School	0.092	0.062	0.034
X_8: Diploma	-0.016	-0.126	-0.027
X_9: Master's Degree	0.087	-0.321*	-0.110
X_{10}: Self Employed	-0.229*	-0.108	0.202*
X_{11}: Government	-0.177*	-0.290*	-0.019
X_{12}: Prefer Stocks	-0.077	0.014	-0.084
X_{13}: Do Not Hire CFP	-0.125	-0.751*	-0.194
X_{14}: Conventional Unit Trusts/Shares/Saving Accounts	0.263*	-0.263*	-0.056
X_{15}: Syariah Literacy	0.004	-0.001	0.012*
X_{16}: Financial Plan	0.010	-0.034	-0.014
X_{17}: Financial Literacy	-0.009	0.003	-0.003
Adjusted R-Squared	0.521	0.423	0.298

Note: * Significance at 95% level of confidence. Source: Based on Author's Own Calculations

As demonstrated above, our aim was to examine relevant factors driving the variations of the demand for financial assets of our research. Accordingly, we discuss the results in the light of similar literatures established by authors involved in the same area of study as well as refer to the actual investment environment in Malaysia. Variables tested in our regression models are discussed in turn.

The best regression referred to the regression with the highest R-squared value or the goodness of fit. High R-squared value means the power of all factors collectively explain the variability in the dependent variable. R-squared for the demand of unit trusts is 0.37, 0.48 and 0.52 for the regression containing income, wealth and net wealth respectively. For the demand of shares, R-squared values are 0.37 for the regression containing income and 0.42 for both regressions containing wealth and net wealth. On the other hand, R-squared values for the demand of saving accounts are slightly lower than the above financial assets. They are 0.22, 0.28 and 0.30 for the regression containing income, wealth and net wealth respectively.

From the examination of R-squared values, we can establish that our model explains best the demand for unit trusts followed by the demand for shares and saving accounts. At an R-squared value of 0.52, the regression model for unit trusts is considered good. Our model explains more than 50% of the variation in the demand for them. However, the remaining 50% of the variation in the demand for unit trusts cannot be explained by our analysis. For the demand for shares, more than 40% of the variation is captured by our model. On the other hand, only 30% of the variation in demand for saving accounts can be modelled by the selection of factors included in our regression. From the results of the R-squared values, we can see the level of demand for unit trusts is explained better than the variation in demand for shares and saving accounts.

7.2.1 Economic Variables: Income, Wealth and Net Wealth Elasticities of Demand

For the demand of unit trusts, the coefficients for wealth and net wealth elasticities of demand[50] are far greater at 0.88 (rounded to 2 decimal places) as compared to a coefficient of income of 0.56. This means that one unit increase in wealth and net wealth would increase the demand for unit trusts by 0.88 units. However, the fact does not mean that a Malaysian Ringgit (MYR) increase in wealth and net wealth eventually would increase the demand for unit trusts by 88 sen. This is because we have converted the monetary values of income, wealth and net wealth as well as the values for monetary holding of unit trusts to units of logged values. But we can still see from these results that there is s significant effect of income, wealth and net wealth upon the demand for unit trusts in terms of unit changes.

The reason why wealth elasticity of demand and net wealth elasticity of demand contains more explanatory value is due to the extensive lists of items reflecting households' ability to consume. Wealth, in our research includes, among others, value of homes, other properties, monetary value of savings and investments as well as the amount of money in households' retirement accounts.

The demand for unit trusts soared after the introduction of the unit trust investment scheme in the Employee Provident Fund (EPF). In an effort to develop a more diversified capital market, the government is encouraging the growth of unit trusts by providing various tax incentives. For example, gains arising from the realisation of investments are regarded as ordinary income from a unit trust and such gains on distribution are not taxed. Further, foreign-sourced income received by a unit trust is exempt from tax with effect from year of assessment 1998[51]. Participants are allowed to withdraw their funds from Account (1) subject

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[50] When discussion about income, wealth and net wealth in regression model is provided it means that we are referring to the elasticities of demand of the said variables.

[51] http://www.us-asean.org/Malaysia/business_guide/Tax_System.asp#6.%20Investment%20Incentives. Retrieved on 18th March 2006

to a balance in the account of more than RM 55,000. They may use 20% of the amount each time to be invested in unit trusts managed by any fund management institutions approved by the Ministry of Finance. The list of approved institutions is provided in Table 6.2. Subsequent withdrawal can be made after three months provided that the balance in Account (1) is more than RM 55,000. If the face value of participants' investments in unit trusts experiences a loss which reduces the fund of Account (1) to be less than RM 55,000, they have to wait until the threshold of RM 55,000 is achieved before they will be able to invest again.

Table 7.2: Lists of Appointed Fund Management Institutions by the Malaysian Ministry of Finance

No	IPD Code	Name of the institution
1	IPD 001	Mayban Investment Management Sdn. Bhd.
2	IPD002	OSK-OUB Unit Trust Management Berhad
3	IPD003	Public Mutual Berhad
4	IPD004	Amanah Saham Sarawak
5	IPD005	Southern Investment Bank Berhad
6	IPD006	HLG Unit Trust Berhad
7	IPD007	Asia Unit Trust Berhad
8	IPD008	RHB Asset Management Sdn. Bhd.
9	IPD009	TA Unit Trust Management Berhad
10	IPD010	SBB Mutual Berhad
11	IPD011	Aminvestment Services Berhad
12	IPD012	ASM Mara Unit Trust Management Berhad
13	IPD013	Pacific Mutual Fund Berhad
14	IPD014	Lembaga Tabung Haji
15	IPD015	Permodalan BSN Berhad
16	IPD016	RHB Unit Trust Management Berhad
17	IPD017	Phillip Capital Management Sdn. Bhd.
18	IPD018	CMS Trust Management Berhad
19	IPD019	HLG Asset Management Sdn. Bhd.
20	IPD020	Mayban Unit Trust Berhad
21	IPD021	Apex Investment Services Berhad
22	IPD022	CIMB-Principal Asset Management Berhad
23	IPD023	Amanah Saham Nasional Berhad
24	IPD024	ASM Asset Management Sdn. Bhd.
25	IPD025	KAF Fund Management Sdn. Bhd.
26	IPD026	JMF Asset Management Sdn. Bhd.
27	IPD027	Affin Trust Management Berhad
28	IPD028	PHEIM Asset Management Sdn. Bhd.
29	IPD029	Avenue Investment Berhad
30	IPD030	MAAKL Mutual Bhd.
31	IPD031	Avenue Asset Management Services Sdn. Bhd.
32	IPD032	Meridian Asset Management Sdn. Bhd.
33	IPD033	Prudential Unit Trusts Berhad
34	IPD034	KL City Unit Trust Berhad
35	IPD035	KLCS Asset Management Sdn. Bhd.
36	IPD036	BIMB Unit Trust Management Berhad
37	IPD037	Kenanga Investment Management Sdn. Bhd.
38	IPD038	Kenanga Unit Trust Berhad
39	IPD039	Alliance Unit Trust Management Berhad
40	IPD040	PHEIM Unit Trusts Berhad
41	IPD041	KSC Capital Berhad
42	IPD042	Hwang-DBS Investment Management Berhad

Source: Adapted from www.kwsp.gov.my. Retrieved on 25th March 2006

The large amount of funds available in the EPF[52] retirement account for Malaysian householders contributes to the high demand for unit trusts. By 2005, the percentage contribution was 11% of wages from the employee and 12% from the employer thus resulting in 23% of monthly income being contributed to the fund each month. To mobilise pooled funds in their accounts, householders invest in unit trusts since it is the only investment that is allowed under the EPF rule. Householders are motivated to invest in order to diversify their assets and/or to earn higher returns from their investments than the standard 5% provided by the EPF. Investment in unit trusts can also be used to reduce tax liability as income and gains from the investment are tax exempted.

However, the effect of income, wealth and net wealth on the demand of shares is less than that of the demand for unit trusts. Although income is significant at 0.38, the coefficients of wealth and net wealth are far greater at 0.57 and 0.51. Here, one unit change in wealth and net wealth results in changes to the level of demand for shares of more than 0.5 units compared to a greater effect on wealth and net wealth from unit trusts at 0.88 units.

On the other hand, the coefficients of income, wealth and net wealth are 0.39, 0.56 and 0.55 respectively. The coefficient of income is much lower than those of wealth and net wealth. From our results we may deduce that wealth and net wealth have almost the same effect on the demand for saving accounts.

The result is not unusual in researches analysing the demand for financial assets. Tin (1998) obtained the same results except in his regression equation for the demand of non-interest earning checking accounts for householders aged 60 and more. In all other regressions for every type of financial assets included in his analysis, elasticity of net worth contained more explanatory power than other economic variables. In the regression of non-interest checking accounts, the

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[52] The Employee Provident Fund (EPF) provides retirement benefit for most workers in Malaysia. EPF is fully funded with contributions and accrued interests are credited into individual's account. The amount accumulated becomes available in a lump sum or in instalments at the age of 55 (the general rule). At the end of 1988, total membership of EPF was 5.3 million people and fund's assets were RM 36.5 billion.

elasticity of income had more explanatory power than wealth and net wealth. [53] Our results thus confirm that much financial asset demand in Malaysia is driven more by the elasticity of wealth and net wealth than elasticity of income.

It is worth mentioning that in the regression for the demand of saving accounts, the performance of our regression model containing income, wealth and net wealth is almost similar. In contrast to the for regression model for the demand of unit trusts and shares, the overall performance for the regression containing wealth and net wealth is more accurate than the regression containing income. Upon examination of the R-squared value for all regressions for every type of financial asset, we can see that R-squared value in the regression containing income is far less in the demand for unit trusts and shares than in the demand for savings. As for the regressions for saving accounts, the differences in the R-squared value in the three regression containing income, wealth and net wealth is not prominent. This suggests that for the demand of saving accounts, the income model is as good as the wealth and net wealth regression model. In contrast, for unit trusts and shares, wealth and net wealth are better models in explaining the variation of the demand than the regression model containing income.

In Malaysia, householders are using saving accounts in commercial banks for transactional purposes rather than for investment purposes. Employees in private and government bodies often use saving accounts for their salary deposit at the end of every month. This results in these accounts serving as better indicators on the demand for saving accounts in Malaysia. On the other hand, savings in other institutions such as Tabung Haji or pilgrimage funds can be regarded as pure saving. Funds in Tabung Haji can only be withdrawn from its counters. There is no other means such as auto-teller machines or cheque facilities offered by Tabung Haji which limits fund withdrawals by depositors. Furthermore, the main objective of saving in Tabung Haji is to provide lump sum capital for pilgrimage for Muslim investors. As the amount of saving included in the research is the combination of deposits in banking institutions and other institutions such as

[53] Can be referred in 884, Table 1, Jan Tin (1998), "Household demand for financial assets: A life-cycle analysis", *The Quarterly Review of Economics and Finance*, Vol. 38, No. 4, 875-897.

Tabung Haji, income elasticity of demand for saving accounts is still slightly lower for wealth and net wealth. If deposits in Tabung Haji are not accounted for, the effect of the elasticity of income on the demand for saving accounts results would have been higher.

As stated above, Tin (1998) produced the same results for the demand for the non-interest earning checking account. The feature of this product is that it can be closely matched with the saving accounts offered by banking institutions in Malaysia. Both his results and our results suggest that income playas a more important role or about the same role as wealth and net wealth do for the demand of a financial asset that is used more for transaction purposes rather than for a saving purpose. This is not true for financial assets that are acquired for investment and saving purpose such as unit trusts and shares.

In summary, we have found that net wealth is able to explain more on the variations for the demand for all financial assets except for saving accounts. As net wealth is defined as the surplus of wealth after all liabilities are taken into account, it is a more meaningful measure of householders' ability to acquire financial assets. The results also suggest that wealth stocks rather than income flow affect more the level of demand for unit trusts and shares. On the other hand, income flow rather than stocks of wealth and net wealth affect the level of savings more.

7.2.2 The Life-cycle Hypothesis

On the demand of unit trusts, householders in the age group of less than 30 are far more likely to demand unit trusts than householders aged from 30 to 50 years (the base group) by 0.412 units. A possible explanation for this higher demand by younger householders is that unit trusts are often used as a saving mode by parents wanting to save for their children's benefit. Amanah Saham Nasional and Amanah Saham Bumiputra (unit trust funds offered by Permodalan Nasional Berhad) are relatively risk-free and provide a steady income stream, thus motivating parents to choose these schemes to invest for their children's future. In addition, at younger age, households face minimal financial obligations having not yet acquired their own homes and other types of debt. Thus they find themselves with extra funds to invest in unit trusts.

In relation to householders aged more than 50, their level of demand for unit trusts is greater than the base group (age 30 to 50) by 0.648 units. The coefficient for this age group is more than the coefficient of the results for household aged less than 30 by more than 2 units (0.648 versus 0.412). These figures confirm that householders aged more than 50 are demanding more unit trusts than the other age groups. As we have suggested earlier these results may be driven by the introduction of self-regulating retirement funds of EPF by the government. Individuals are allowed, even encouraged, to invest their entitled amount of funds in Account I (funds of more than RM 55,000) in various unit trusts scheme approved by the Ministry of Finance. Having accumulated a sizable holding in the account, they are likely to be interested in diversifying their holdings by investing in unit trusts. At this age, they are busy trying to accumulate sufficient income for retirement so that they inclined to switch from an EPF account to other forms of investment such as unit trusts to earn higher rates of return at a tolerable level of risk.

Investments in the unit trusts schemes offered by PNB are virtually risk-free (Ali, 2003). Stable rates of return and the price of PNB unit trusts rarely fluctuate making them a suitable asset to hold during retirement years. Superior rate of returns provided by PNB unit trusts also contribute to the high demand of their products.[54] In comparison, other unit trusts provided by other unit trust providers may offer high rates of return but they are not considered so desirable because of the perceived risk of their nits either fluctuating or even deflating.

Our results which indicate that older households are less risk averse compared to younger households are in line with results obtained by Ameriks and Zeldes (2001). In their study on the demand for financial assets by American households, they found that equity financial holdings increase with age, peaking in peoples' fifties and becoming constant in the later years. Furthermore, older householders are willing to hold more unit trusts because they regard unit trust schemes offered by the national unit trust management company that is PNB, as risk free investment. We cannot emphasize more that it is actually true in case of PNB unit trusts. The fact that the government guarantees the investment values of householders in the PNB unit trusts unit only confirms the fact. Although it is not always true in the finance world, the expectations of households do matter in order for them to hold the units. Retired households usually consider holding units offered by PNB to secure their retirement capital as well as earning stable and sensible amount of returns on their investments.

In addition, mature households will usually have more disposable income available for investment. In contrast to households aged between 30 and 50, this group of households usually have fewer financial obligations as they are clearing their debts in preparation for retirement. Householders in their fifties are likely to have fewer financial obligations such as house mortgage balance, car hire

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[54] The dividend rate of 7.1 sen per unit of par value of one Ringgit Malaysia had been announced for the year ending 31st August 2005 for Amanah Saham Wawasan 2020 (One among 10 unit trust schemes managed by PNB). A dividend of 7.1 sen a unit represents a return of 7.1% on the investment. Similar rates of return around 7%-8% can be expected on all unit trust schemes managed by PNB according to past trends.

purchase balance and other forms of debt leaving them with more disposable income to invest.

In the regression containing wealth, the coefficient for householders of less than 30 is 0.539 units more than the base group. On the other hand, for householders aged more than 50 the coefficient is 0.516 higher than the base group. The results are consistent with the results in the regression containing income. Younger and older households invest more in unit trusts than middle-aged householders do. Different patterns, however, exist in relation to the direction of the coefficients between younger and older householders. In income regression, the coefficient of younger householders is fewer than that of older householders. In contrast, the reverse pattern is observed in the other two regressions that contain wealth and net wealth as the economic measures. In the regressions containing wealth and net wealth, the coefficient for younger householders is higher than for older householders. The result is prominent in the regression containing net wealth. Younger householders in more unit trusts by 0.647 units than the base group while older householders invest more than the base group by 0.516 units. In this regression we may observe that the coefficient for the younger householders is higher than for the older householders unlike in the regression containing income where young households' coefficient is less than the older households. The results reveal that income, wealth and net wealth affect differently for different age groups as far as the demand for unit trusts is concerned.

In sum, in relation to the demand for unit trusts, the three age groups analysed in our research are significantly different in the regressions that contain income, wealth and net wealth. Taking households age between 30 to 50 years as a base group, we found that households aged less than 30 and households aged more than 50 invest more than the base group does. The coefficients are all positive indicating that the difference between the age groups moves along in the same direction. The results obtained from our analysis suggest that a life-cycle pattern exists among Malaysian households in relation to the demand for unit trusts. More importantly, the results are robust since regressions containing economic

indicators such as income, wealth and net wealth produce similar pattern, albeit at different degrees of strength.

In relation to the demand for shares, a less obvious pattern of life cycle is found. In the regression containing net wealth (Refer to Table 7.1), householders aged less than 30 demanded almost the same level of shares as the base group does. Statistically, no significant difference between the two groups was found. On the contrary, a life-cycle pattern can be found among householders aged more than 50 and that of the base group. Our results successfully show that there is a significant difference in the level of demand for shares among householders aged more than 50 and householders aged between 30 and 50. Clearly, a life-cycle pattern can be traced in relation to the demand for shares based on the regression analysis on net wealth. .

Similarly, in the regression on the income of households, significant differences in the level of demand for shares exist between older households and the base group (householders aged 30 to 50). Older householders invest 0.370 units more units of shares compared to middle-aged householders. With reference to the householders aged less than 30, the same results of no life-cycle pattern as in the regression containing net wealth. The same pattern was also found in the results obtained in the regression containing wealth. Older householders show a significantly higher demand for shares in comparison to middle-aged householders by 0.376 units.

Results obtained in the net wealth regression are more reliable since they reflect the real ability of households to invest in financial assets. Thus, we concluded that a life-cycle pattern demand for shares does exist in Malaysian householders. From the results, we may suggest that the age factor is prominent in determining the level of demand for shares as it is in the demand for unit trusts.

Consistent results in the demand for saving accounts have been obtained in all regressions containing income, wealth and net wealth. In the regression containing net wealth, householders aged more than 50 have a higher level of savings compared to householders aged 30 to 50 years by 0.224 units. The results are

significant at 5% level of significance. Results from the regressions containing income and wealth both are also consistent with this fact. The results are similar to the findings of Biorn (1980)[55]. He analysed the life-cycle effect on consumption of Norwegian households by analysing age parameters, consumption expenditure, and income and wealth at the micro level, as in our case. He found that young persons, who have longer planning periods than older people, show a life-cycle pattern in their consumption which is not found in the consumption patterns of older householders.

On the other hand, the life-cycle effect is absence between households aged less than 30 against the middle-aged householders group. In the regression containing net wealth, young households have a higher level of savings than middle-aged householders by only 0.029 units resulting in insignificant differences between them. On the other hand, in the regression containing income and wealth, our results indicate that young householders have fewer savings than middle-aged householders by 0.0153 and 0.0340 respectively. There is an inverse relationship between the two groups. Younger households save less due to the fact that they have to save for other purposes such as accumulating money for down-payment on housing, study loan repayments and so on. Our results are thus in line with the prediction of the life-cycle hypothesis stating that individuals who start off with meagre savings, can begin to build their wealth as they age.

In conclusion, the results from the demand regression for the three types of financial assets reveal mixed evidence on the life-cycle effect. As stated by Poterba and Samwick (1999), the effect of the life-cycle is not uniform across different types of assets. In our case, results on the demand for unit trusts show a distinct life-cycle effect across the three groups of age. This effect, however, is only partly founded in the case for the demand for shares. A significant life-cycle pattern only exists between middle-aged householders and older householders, not among the very young and middle-aged householders. Finally, as for the demand for saving accounts, a distinct life-cycle effect exists between older householders

[55] See Biorn (1980), "The consumption function and the life cycle hypothesis: An Analysis of Norwegian Household Data", *Scandinavian Journal of Economics*, 465- 480.

and middle-aged householders. A life-cycle pattern between young householders and middle-aged householders has not been established in our analysis on the demand for savings accounts.

When the age effect fails to be fully explained for some type of financial assets, namely shares and saving accounts, other theories to explain the behaviour for savings and wealth accumulation may be applicable. The competing theory of savings and wealth accumulation is the theory of precaution. According to this theory, the pattern of wealth accumulation is not determined by the age of individuals, but to their need to save for some precautionary reason. In this research, we cannot conclude that the theory of precautionary savings prevails over the prediction of the life-cycle. A drawback in our research design dealing with the theory of precautionary savings prohibits us from drawing such conclusion.

The hypothesis proposed by Modigliani and Brumberg (1954) and Friedman (1957) on how the life-cycle effect affects various aspects of householders' economic decisions, includes their consumption's pattern as well as the pattern of their demand for financial assets during their life-cycle. Their hypothesis on different patterns of demand for financial assets that occur at various age levels is also partly found in our research. Our results suggest that only the demand for unit trusts produces a distinctive life-cycle pattern. This pattern also exists between older householders and middle aged householders but not between young and middle aged householders in relation to the demand for both shares and savings accounts.

7.2.3 Demographic Factor: Gender, Marital Status and Race

Demographic factors are among important determinants of the demand for financial assets. Both Keynes (1936) in his theory of marginal propensity to save and Friedman (1956) in his theory of asset demand had examined sets of demographic variables that could affect their theories. For example, Keynes stated that the individual's propensity to save is influenced by objective factors such as income and wealth as well as subjective factors such as precaution, pride and independence. These subjective factors vary greatly among individuals with different socioeconomic characteristics (Tin, 2000, page 113).

Tin (2000) included factors such as age, number of children, marital status, gender, and race as sets of demographic variables to be tested in his examination of financial assets demand. His results revealed that the demand for financial assets increase with age and decreases with the number of children. As for the level of education, the coefficient is not always positive for every type of asset under his analysis. Some assets are demanded less by educated people. As for marital status, a negative coefficient in the level of demand for most types of assets may be linked to the number of children they have. Married couples having children will have less disposable income available for investment due to the significant expenses devoted to their children. It is the same for the gender of householders. Men demand certain types of assets more than women. In general, his analysis revealed that the propensity to save in householders varies considerably depending on the demographic groups that they belong to.

Other studies that consider the effect of demographic factors on savings and consumption level have been done by Hall and Mishkin (1982), Zeldes (1989) and Lusardi (1996). In line with their studies, we examined sets demographic background of householders in our study of financial asset demand. Demographic and socio-economic variables included in the regression analysis are age, gender, marital status, level of education, job sectors which householders fall into as well as their racial composition. The age effect has been discussed exclusively due to

our research objective to learn more about the life-cycle effect. Discussions on the effect of demographic variables tested in our regression model are discussed in the next section.

In our main regression which contains net wealth as the economic variable, it can be seen that females acquire fewer shares compared to their male counterparts. But the result is not significant at the 5% significant level. On the demand for unit trusts, there is no distinguishable difference between female householders and male householders. The negative sign of the coefficient insinuates that female acquire fewer unit trusts, but since the results are not significant at the stipulated level of significance, gender differences on the level of demand for unit trusts cannot be established. On the other hand, female householders save significantly more than male householders.

For both types of risky investments, i.e. unit trusts and shares, gender differences do not prevail. Thus our results do not confirm the findings of Barber and Odean (2001) and Lott and Kenny (1999) who stated that men and women have different attitudes to risk. The only difference that exists in relation to gender is in the demand for savings accounts.

Men are generally more confident than women (Lundeberg *et al.*, 1994). In addition, Prince (1993) stated that men feel more competent and confident than women on matters related to finance. In relation to the demand for shares, Barber and Odean (2001), from their research on 35,000 American men and women investing in stocks from 1991 to 1997, found that men trade 45% more than women. The motivation for their study was quite different from our, as their aim was to examine for possible returns differences of participating men and women. We, on the other hand, have examined only on the amount of shares held by both sexes. Lenney (1977) also stated that women have lower opinions of their abilities when facing uncertain and ambiguous conditions. Feedback on women's participation in stock market activity and share acquisition is ambiguous an

inconclusive. Our results hint that females hold significantly fewer shares. But the results are not significant at 5% level of significance.

Yet it is not possible to conclude that women are less interested in acquiring financial assets. They save more than male householders and hold about the same amount of unit trusts as their male counterpart. Indeed increased participation by women in the last twenty years may be the core underlying reason for the results obtained in our analysis. There was a massive increase in demand for women in the workforce during the growth of manufacturing industry in the nineties. 46.4% (in 1990) and 43.4% (in 1995) of workers in manufacturing are women. The service sector and the government sector are also the main employers of women. In these sectors 60% of employees are women. As almost 50% of workforce in Malaysia are now women, it is safe to deduce that women and men have the same opportunity to save and invest, thus resulting in a more equitable and balanced level of financial asset ownership by Malaysian men and women. The inadequate level of women's ownership of shares is moderated by the higher amount of savings that they have, and their more or less the equal ownership of unit trusts. Table 7.3 presents the percentage distribution of the female labour force out of total labour force during 1970-1995.

Table 7.3: Percentage Distribution of Female Labour Force during the Year 1970-1995

Sector	1970	1980	1985	1990	1995
Agriculture, Forestry, Livestock and Fishing	38.0	39.0	38.4	34.4	28.4
Mining and Quarrying	12.6	10.3	10.5	12.9	11.9
Manufacturing	28.1	40.3	43.1	46.4	43.4
Construction	5.3	7.5	3.4	6.9	12.4
Electricity, Gas and Water	6.7	7.1	5.6	4.3	7.8
Transport, Storage and Communication	18.2	29.3	37.4	38.6	11.2
Wholesale and Retail Trade, Hotels and Restaurants	4.3	6.3	10.4	11.1	37.6
Finance, Insurance, Real Estate and Business Services	NA	29.5	35.1	34.2	40.3
Community, Social and Personal Services; Public Administration; and other Services	NA	29.4	36.8	37.9	39.2

Source: Sixth Malaysia Plan, 1991 and Seventh Malaysia Plan, 1996.

On the other hand, the marital status of households does not affect their level of demand for any type of financial assets. The negative sign of coefficients for this variable hints at possible demand differences between married and single householders. The demand by married householders may be lower than that by single householders. However, the results are not significant at 5% significant level which indicates that households who are married do not acquire financial assets in a different pattern to those who are single. Tin (2000), on the other hand, produced a result which shows that married households do acquire fewer of financial assets than single households. All financial assets in his analysis demonstrated the same pattern of demand; that is married householders demanding fewer financial assets compared to single householders. Married householders, in general, have more obligations: to provide necessities for their children such as education, childcare and living expenses. In view of this, they have less disposable income available to invest in financial assets. This view is supported by Bosworth, Burtless and Sabelhaus (1991) and Avery and Kennickel (1991) who they agreed that married couple with children save less than their counterparts.

Our results which indicate that married and single householders save and invest about the same amount thus do not support the popular stance on financial planning. Financial planners usually advise their married clients to save more so that they can provide their offspring with an adequate level of education. Householders with growing children are supposed to invest in education trust funds or other forms of safe investments in order to provide sums for their children's education costs in the future. Our results might be driven by the fact that insurance holdings as *takaful* are not included. *Takaful* schemes offered by various Islamic and conventional institutions usually provide educational *takaful* for children. By not including this insurance premium in our analysis, we cannot conclude that householders in our analysis are, as a matter of fact, making provision for their children's education or not.

In relation to the racial composition of householders, our results suggest that there is no significant differences between non-Malay and Malay as far as the demand of financial assets are concern. The negative coefficients from the results suggest that Malays have fewer financial assets but the results are not significant at 5% level of significance. The results can be seen as a positive indicator reflecting that no significant economic parity exists between non-Malays and Malays. Reducing the economic gap between different races in Malaysia was one of the major objectives of the New Economic Policy (NEP). The Malaysian New Economic Policy (NEP or *DEB* for Dasar Ekonomi Baru in Malay) was a restructuring program launched by the Malaysian government in 1971 under the then Prime Minister Tun Abdul Razak. The term of the NEP ended in 1990. It was succeeded by the National Development Policy in 1991.

The NEP had the stated goal of poverty eradication and economic restructuring so as to eliminate the identification of ethnicity with economic function (in colonial times, Malays were farmers, Indians were rubber tappers and Chinese were mine workers). The initial target was to move the ratio of economic ownership in Malaysia from a current ratio of 2.4:33:63 ratios of Bumiputra, other Malaysian, and foreign-ownership to a 30:40:30 ratios. Malays are the original group in Malaysia. Traditionally, Malays were recognised as among the poorest group of people in Malaysia with the Indians. The Malays lived in the rural areas working rice plantations. During the post-independent years i.e. in 60s, 70s and 80s, the majority of Malays worked either in the government sector or were employed in the traditional jobs in the rural areas. Compared to the Chinese, only a minimum number of Malays were engaged in business activities which made them poorer than the Chinese (Malaysian Chinese). As a result, the Malays share is far lower that that of the Chinese. In 1970, the Malaysian Government estimated that Bumiputras held roughly 2.4% of Malaysia's economy, compared to 33% owned by other races with 63% in foreign hands. Also, in 1969 Malaysia experienced her worst ever racial rioting and the NEP was perceived as a means of preventing such outbreaks in future. The perception was that the Malays (and not all Bumiputra) had rioted due to poverty and lack of opportunities.

As a result of the NEP, the wealth in the hands of the Bumiputras went from 4% in 1970 to about 20% by 1997. Table 7.4 summarises the results of the NEP implementation.

Table 7.4: Bumiputra Equity and Some Economic Performance for the Year 1970, 1990 and 2004

NEP Benchmarks	1970	1990	2004
Bumiputra Equity	2.4% (RM477m)	19.3% (RM20.9b)	18.7% (RM73.2b)
Overall poverty	52%	17.1%	5%
Rural poverty	59%	21.8%	11%
Household Income	RM660	RM1,254	RM2,996

Source: http://en.wikipedia.org/wiki/Malaysian_New_Economic_Policy. Retrieved 13th November 2006

However, wealth distribution under the NEP remains unequal. In 1997, 70.2% of households in the bottom 40% income group were Bumiputra, while 62.7% of households in the top 20% income bracket were non-Bumiputra. Also, while the NEP may assure that the Bumiputras collectively own a certain percentage of the national wealth, it does not ensure that the median economic situation of the Bumiputra is improved in any meaningful sense. For example, a goal of 30% of the national wealth held by Bumiputra was not indicative that the median 60% of Bumiputras held 28 percent of the national wealth. It could also be achieved by just one Bumiputra holding 29% of the national wealth and the rest holding 1% collectively. As our analysis does not examine on the distribution of financial asset held by Malays and non-Malays, we can not enlighten readers on the issue of financial wealth distribution.

7.2.4 Socio-economic Effect: Educational Background and Employment sector

There are many explanations offered by researchers on the effect of education and the risk attitude of households. Hochguertel *et al.* (1997) found that better educated households invest more in stocks than less educated people, indicating that the better educated householders are more willing to take greater risks compared to less educated householders. He found that better educated householders get better pay with less risk of income fluctuation. Accordingly, educated householders may be more likely to engage in investments which are more risky in nature as they are more able to compensate for their investment losses with their secured and higher income. Householders with high levels of education are also less likely to be made redundant due to their expertise and intellectual capacity. Lucas (2000), in his study on labour income variation also established that labour income variation represents the amount of risks individuals are willing to take in relation to their demand for financial assets.

Another explanation for the positive relationship between the level of education and amount of equity holdings is that better educated households have access to more information. This school of thought was researched by King and Leape (1987), among others. They suggested that educated people have better information about various investment opportunities. Since shares and other equity related investments are information-driven investment ventures, better-educated households usually acquire more shares and equity related investments.

In our analysis, levels of education were divided into secondary school, diploma, degree and master's degree. For the purpose of the analysis, we took undergraduate degree as the base group, secondary school leavers signifies 10 to 12 years of education and students have to complete a further 3 years of education in order to gain a diploma and another 2 years to obtain an undergraduate degree. For a master's degree, universities in Malaysia usually offer a two-year

programme except for a very few such as University Technology Mara which has an 18-month master's degree in business administration.

Based on our analysis, the only significant results were obtained in the regression for the demand of shares. It was found that householders with undergraduate degree levels demanded more shares than householders with master's degrees. Other than in the regression of shares, no evidence was discovered on the effect of education level and the demand for financial assets. No significant difference was established in the regressions of the demand for unit trusts and saving accounts. This suggests that households' educational level has little or no influence on the demand for financial assets.

Our results, in this regard does do not coincide with majority view-point in the literature that states householders with higher education level invest more in equity. One reason driving this phenomenon is that subjects currently taught in classes, colleges and universities in Malaysia are not related to financial education and awareness. School children as well as universities' students are not directly exposed to basic financial education. Formal subjects such as mathematics, commerce, accounting and house science subject are being taught, but no connection has yet been made to link the usage of these subjects towards financial education.

7.2.5 Risk Tolerance Level

In theory, how householders perceive themselves to be risk-averse or risk-taker affects their level of demand for financial assets. However, the level of risk that can be tolerated by householders is a product of many factors. For instance, age, income and wealth level, number of dependents and nature of employment all contribute to the level of tolerated risk of a householder. Increased age, for many householders is a reason to be more prudent. Thus they may be more likely to reduce their level of equity holdings. Fluctuation in income stream due to human

capital uncertainty is also a possible factor to affect the level of demand for financial assets according to Heaton and Lucas (1997). Entrepreneurs, who are facing greater income risk than salaried householders are less likely to hold wealth in the form of stocks and other risky financial assets according to Heaton and Lucas (2000).

In our research, we have included householders' own perceptions on their level of risk tolerance by asking them whether they prefer to hold shares or bonds. Their answers have been taken as a proxy for their level of risk tolerance. The results from the regression models revealed that there is no significant difference between the holdings of stocks and bonds in all regressions. This suggests that householders' own evaluations on their own level of risk tolerance are not a valid factor in the demand for financial assets. For example, if a householder considers himself as a risk-taker, it does not necessarily follow that he will hold more unit trusts and shares than one who is a risk-averse.

The coefficient for householders holding stocks in the demand for unit trusts is negative compared to the base group of "prefer bonds". Where the result is significant, we have assumed that householders who are risk-takers (prefer stocks over bonds, thus producing a negative coefficient) demand more unit trusts than householders who are risk-averse. For the demand for shares, the coefficient is positive although not significant. For saving accounts, the coefficient is negative suggesting that those who are risk takers have fewer savings. The positive sign of the coefficient indicates that households who prefer stocks actually holding more stocks than bonds.

7.2.6 Certified Financial Planners' involvement

In the specialist model for personal financial planning delivery proposed by Black et al. (2002), certified financial planners are the closest parties to the householders who have chosen to hire professional advice in planning their portfolio. In a specialist model, as opposed to a generalist model, householders depend on the financial planners to survey products and carrying out the duty of planning their financial matters. Due to the comprehensive involvement of financial planners in household portfolio allocation, we resolved to examine whether financial planners' involvement affects the levels of demand for assets. In other words, we wanted to know whether householders who hire the service of financial planners tend to demand certain types of financial assets. A similar study that examined the effect of the professional involvement of financial planners in household portfolio allocation was done in Ioannide (1992).

We have taken householders who have hired the services of financial planners as the dummy group. Thus, coefficients in the regression results should indicate whether differences in demand for financial assets exist among the householders who hire the service of planners and those who did not.

The regression result for the demand of unit trusts is negative but not significant at 5% level of significance. This indicates that, in relation to the demand of unit trusts, there is no significant difference between householders hiring financial planners and those who do not. But, if the results should have significant, it could indicate that householders hiring certified financial planners have a tendency to demand more unit trusts than householders who do not. The results might be due to the fact that many householders are investing in unit trusts following the government initiatives to encourage this particular type of investment. Middle aged householders have usually acquired a significant amount of savings in the retirement accounts which enables them to invest. Many householders usually depend on the advice received from unit trust agents to make their investment decisions rather than use the services of financial planners. As investment in unit

trusts is perceived not to be too risky, for example, when investing in the national unit trust provider, Permodalan Nasional Berhad (PNB), householders are more likely to follow the free advice from their unit trust agents.

In the regression of the demand for shares, our results revealed that there is a significant difference between households hiring certified financial planners and households who do not. The negative coefficient means that households who are using the services of financial planners demand significantly more shares than householders who manage their financial affairs on their own. The result is in line with the proposition made by researchers such as Hochguertel *et al.* (1997) and King and Leape (1987) that better- educated and better-informed householders will demand more equities than those who are less educated. Investment ventures in shares and other equity holdings needs to be more fully researched. With the guidance obtained from certified financial planners, households are more confident to invest in risky investments since certified financial planners had adequate training and vast experience to guide their clients to invest in accordance with their clients' financial objectives.

In relation to the demand for saving accounts, the results turn out to be insignificant. This indicate that it is not statistically proven that households hiring the service of financial planners invest more in saving accounts than households who manage their own personal finances. As saving accounts are easy to set up and straight forward to manage, it is predictable that the demand for saving accounts will be about the same for households who have the luxury of receiving advice from financial planners and who do not.

7.2.7 Preference between Islamic and Conventional Financial Assets

According to the publication of researchandmarket.com, year 2005's annual turnover of Islamic financial institutions was between 200-300 billion pounds compared to only around 5 billion in 1985[56]. The rate of growth was estimated to be 10-15% per year. Indeed, a double-digit growth was recorded in the Islamic banking sector. Due to the rapid development of Islamic banking and finance for the past 25 years, 1980- 2005, we determined to examine whether households demonstrate significant preferences between Islamic and conventional financial assets.

At present, an analysis of the differences between the two means of banking and finance is viable due to the approximately level playing field on which they both operate. At present, Islamic banking operations are in a stable growth situation. It had surpassed the initial stage of its development life-cycle. It can be argued that it now at a mature, stable pace of existence. More savings, investments and risk management products had been introduced to the market. Moreover, diverse numbers of outlets in the form of standalone Islamic banks and conventional banks Islamic window have been made accessible to investors.

With high rates of growth and increased levels of funds in the Islamic financial market, the sophistication of Islamic financial products also increases (Zamir Iqbal,1997). However, the product innovations of Islamic banks are limited to areas which are permitted by the Syariah. The fact has been expressed by Haqiqi and Pomeranz in one of their articles:[57]

> "Pursuant to the principles of Syariah, Islamic banks do not grant loans bearing interest, and do not hold any investment instruments with fixed income, such as bonds, convertible bonds, and preferred stocks. On the other hand, there are joint ventures, cooperation,

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[56] The market research is titled "Introducing Islamic Compliant Financial Products-A Guide to Capitalising on Potential Opportunities". It was written by Michael Gassner, a leading consultant in Islamic finance based in Germany.

[57] Available on: http://islamic-finance.net/islamic-ethics/article-12/article12-4.html

sharing and other agreements between the depositors and the banks, and the borrowers and the banks."

Available on: http://islamic-finance.net/islamic-ethics/article-12/article12-4.html. Retrieved 18th July 2005

Iqbal (1997) in his study on the subject of an Islamic financial system discusses the principles of Islamic banking. In order to understand more about how an Islamic financial system is different from its conventional counterpart, we reproduced his work in Table 7.5:

Table 7.5: Principles of an Islamic Financial System

Islamic Principles	Explanation
Prohibition of interest	Prohibition of *riba*, a term literally meaning "an excess" and interpreted as "any unjustifiable increase of capital whether in loans or sales" is the central tenet of the system. More precisely, any positive, fixed, predetermined rate tied to the maturity and the amount of principal (i.e., guaranteed regardless of the performance of the investment) is considered *riba'* and is prohibited. The general consensus among Islamic scholars is that *riba'* covers not only usury but also the charging of "interest" as widely practiced.
Risk-sharing	Because interest is prohibited, suppliers of funds become investors instead of creditors. The provider of financial capital and the entrepreneur share business risks in return for shares of the profits.
Money as "potential" capital	Money is treated as "potential" capital, that is, it becomes actual capital only when it joins hands with other resources to undertake a productive activity. Islam recognizes the time value of money, but only when it acts as capital, not when it is "potential" capital.
Prohibition of speculative behaviour	An Islamic financial system discourages hoarding and prohibits transactions featuring extreme uncertainties, gambling, and risks.
Sanctity of contracts	Islam upholds contractual obligations and the disclosure of information as a sacred duty. This feature is intended to reduce the risk of asymmetric information and moral hazard
Shariah-approved activities	Only those business activities that do not violate the rules of *Syariah* qualify for investment. For example, any investment in businesses dealing with alcohol, gambling, and casinos would be prohibited.

Source: Adapted from Zamir Iqbal (1997), "Islamic Financial Systems", Finance and Development, June 1997. Available online http://www.imf.org/external/pubs/ft/fandd/1997/06/pdf/iqbal.pdf. Retrieved on 13th August 2006

In Malaysia, Islamic banking and finance were formally launched by the first operation of the Islamic bank, Bank Islam Malaysia Berhad (BIMB) in 1984. Inspired by the successful operation of the first Islamic bank, there are now three Islamic banks in operation in Malaysia; BIMB, Bank *Muamalat* and RHB Islamic Bank. On top of this, almost all conventional banks offer an "Interest- Free Banking Scheme" via their Islamic window system. The system had been introduced by the Central Bank of Malaysia, in 1993 to encourage the development of Islamic banks. The introduction of the scheme multiplied the performance and the amount of deposits that are Islamic-compliant. Table 7.6 summarises amounts and percentage changes of deposits held by Islamic banks and other financial institutions in the year 2004 and the year 2005.

Table 7.6: Islamic Banking System- Deposits by Type and Institution

Deposits and institutions	**Annual Change**				**As at end 2004**
	2003		**2004**		
	RM (Million)	**%**	**RM (Million)**	**%**	**RM (Million)**
Demand deposits	**1,796**	**19.6**	**1,937**	**17.6**	**12,917**
Islamic banks	693	20.1	435	10.5	4,578
Commercial banks	1,103	19.2	1,502	22.0	8,339
Savings deposits	**1,442**	**26.6**	**1,566**	**22.8**	**8,432**
Islamic banks	190	10.8	350	17.9	2,302
Commercial banks	1,145	37.8	1,596	38.2	5,771
Finance companies	107	16.9	-380	-51.4	359
Investment deposits	**-741**	**-2.1**	**6,769**	**19.2**	**41,996**
Islamic banks	93	0.8	1,736	15.5	12,919
Commercial banks	2,351	-18.7	8,923	87.2	19,150
Finance companies	614	7.3	-5,159	-57.2	3,860
Merchant banks	213	56.5	714	121.0	1,304
Discount houses	690	19.6	555	13.2	4,763
Other deposits	**4,410**	**161.6**	**2,375**	**33.3**	**9,514**
Islamic banks	187	157.1	651	212.7	957
Commercial banks	3,148	147.6	1,234	23.4	6,515
Finance companies	1,150	2,017.5	526	43.6	1,733
Merchant banks	-46	-15.0	-38	-14.6	233
Discount houses	-29	-25.7	2	2.4	86
Total deposits	**6,906**	**13.0**	**12,647**	**21.0**	**72,859**
Islamic banks	1,163	7.1	3,172	18.0	20,756
Commercial banks	3,043	13.0	13,255	50.0	39,775
Finance companies	1,871	20.6	-5,013	-45.7	5,952
Merchant banks	168	24.6	676	79.3	1,527
Discount houses	661	18.2	557	13.0	4,849

Source: Bank Negara Malaysia Annual Report 2004, at http://www.bnm.gov.my/index.php?ch=116&pg=350&ac=1. Retrieved 25th June 2006

Although Islamic banking services have been introduced for quite some time, Haron *et. al.* (1994), established that only 63% of Muslim and non-Muslim respondents in two states of Malaysia had either partly or fully understood the concept of Islamic banking. 39% of respondents stated that they had chosen Islamic banks purely due to their religious belief. The same phenomenon had also been found in Singapore. Only 26% of Singaporean respondents stated that they hold Islamic financial products solely due to religious faith, (Gerrard and Cunningham, 1997). These findings may lead to two arguments. The low percentage of clients who stated that they held products of Islamic banks due to religious reasons may suggest a lack of educational measures to educate customers in Islamic banking concepts. On the other hand, this phenomenon could also suggest that these customers are banking with Islamic banks for plenty of other positive reasons such as diversity of products, greater availability of outlets and good service. Customers do not need to be Islamic financially literate before they may decide to use the service of Islamic banks.

According to our analysis, no significant difference exists between Islamic and conventional savings balances. In other words, depositors are indifferent to the types of saving accounts that they have. They do not choose Islamic and conventional avenues of saving to be different. This result is surprising as Islamic banking services are currently available to almost all domestic and international conventional banking outlets. This means it is easy to open and maintain interest-free savings accounts as they are available everywhere. With such development, householders may be expected to hold more Islamic saving accounts than conventional saving accounts. The results partly explain the findings of Haron *et al.* (1994) that the cause is the low understanding of depositors on the operation of Islamic banks and interest-free deposits. However, since the main purpose of saving and investing is to earn a high return and minimise the level of risks, householders are still of the opinion that putting their savings in conventional institutions is more rewarding. The big banks in Malaysia are the conventional banks (although many have interest-free products). As most people think that "big is beautiful", they are placing greater trust in the big established banking and

financial institutions. Householders, in general, also place great confidence in foreign banks due to their stability following their superior financial organisation and performance over a long period of years.

For the demand of unit trusts, there is a significant difference between Islamic and conventional financial asset holding. From the amount of demand for unit trusts, the demand for conventional unit trusts is higher by 0.263 units. This is evidenced by the small holdings of Islamic unit trusts compared to the total value of unit trust investments in Malaysia. Although the share of Islamic unit trusts to the total net assets (NAV) increased from 6.8% to 7.7% from the year 2003 to 2004, the holdings are significantly small at 6.8%. Other information about Islamic unit trusts can be observed in Table 7.7.

Table 7.7: Syariah-based Unit Trust Funds

	2004	2003
Number of management companies	28	27
Number of approved funds	71	55
Total approved fund size (billion units)	38.00	24.90
Units in circulation (billion units)	13.16	8.59
Number of accounts	427,000	346,152
NAV of funds (RM billion)	6.76	4.75
% of NAV to total industry	7.7	6.8

Source: Islamic Capital Market Review 2004. Available online: http://www.sc.com.my/eng/html/resources/annual/ar2004-eng/pdf/pt2_icm.pdf. Retrieved on 18th May 2006

Another possible reason why the demand for conventional unit trusts is higher than Islamic unit trusts is due to the greater maturity of conventional unit trusts as compared to Islamic unit trusts which had only been introduced by the launch of Arab Malaysia Tabung Ittikal Trust Fund in 1993. In contrast, conventional unit trusts had been launched in Malaysia by the introduction of Amanah Saham Nasional in April 1981. Furthermore, conventional unit trusts have more complex and better channels of selling with more agents and outlets. For example, Permodalan Nasional Berhad has its own offices in every state in Malaysia. In addition, their products may be bought and sold in major banks and all post offices in Malaysia. Moreover diverse distribution undoubtedly enhances the value of unit trusts sold by the provider. Our results indicate that conventional unit trusts are more popular than Islamic unit trusts notwithstanding the rapid

development of Islamic unit trusts during the last few years. Table 7.8 provides the list of Islamic unit trust funds that have been approved by Syariah Advisory Council as at 15th October 2004.

Table 7.8: List of Islamic Unit Trust Funds (Launch as at 15 October 2004)

Name of Management Company	Name of Fund	
Government		
1. Amanah Saham Kedah Berhad	1.	Amanah Saham Kedah
2. ASM MARA Unit Trust Management Berhad	2.	Dana Al-Aiman
	3.	Dana Bestari
	4.	ASM Dana Mutiara *(formerly known as Kumpulan Modal Bumiputera Yang Keempat)*
3. PTB Unit Trust Berhad	5.	Amanah Saham Darul Iman
4. Pelaburan Johor Berhad	6.	Amanah Saham Angkasa
Private		
1. Avenue Unit Trust Management Berhad	1.	Avenue SyariahEXTRA Fund
	2.	Amanah Saham Wanita
2. Affin Trust Management Berhad	3.	Dana Islamiah Affin
3. AmInvestment Services Berhad	4.	AmIttikal Fund
	5.	AmBond Islam
	6.	AmAl-Amin
	7.	AmIslamic Balanced
	8.	AmIslamic Growth
4. Apex Investment Services Berhad (*formerly known as Apex Unit Trusts Berhad*)	9.	Apex Dana Al-Sofi *(formerly known as Apex Islamic Income Fund)*
	10.	Apex Dana Al-Faiz *(formerly known as Apex Islamic Balanced Fund)*
5. Asia Unit Trusts Berhad	11.	AUTB Dana Bakti
	12.	AUTB Dana Bon Amanah

Table 7.8: List of Islamic Unit Trust Funds (Launch as at 15 October 2004) (continued)

6. BIMB Unit Trust Management Berhad	13.	Amanah Saham Bank Islam Tabung Pertama
	14.	ASBI Dana Bon Islam
	15.	ASBI Dana Pendidikan
	16.	ASBI Dana Persaraan
7. SBB Mutual Berhad	17.	SBB Mutual Dana Al-Ihsan
	18.	SBB Mutual Dana Al-Mizan
	19.	SBB Mutual Dana Al-Ihsan2
	20.	SBB Mutual Dana Al-Azam
	21.	SBB Mutual Dana Al-Hikmah
	22	SBB Dana Al-Hafiz
	23.	SBB Dana Al-Ikhlas
	24.	SBB Dana Al-Faiz
8. Commerce Trust Berhad	25.	Lifetime Dana Mubarak
	26.	Lifetime Dana Barakah
9. RHB Unit Trust Management Berhad	27.	RHB Mudharabah Fund
	28.	RHB Islamic Bond Fund
	29.	RHB Islamic Growth Fund
10. HLG Unit Trust Management Berhad	30.	HLG Dana Makmur
	31.	HLG Dana Maa'rof
	32.	HLG Dana Munir
11. Hwang-DBS Unit Trust Berhad	33.	Hwang-DBS Dana Izdihar
	34.	Hwang-DBS Dana Fahim
12. Kenanga Unit Trust Management Berhad	35.	KUT-Negara Equity Islamic Trust

Table 7.8: List of Islamic Unit Trust Funds (Launch as at 15 October 2004) (continued)

13. KL City Unit Trusts Berhad	36.	KL City Dana Imbang
14. Public Mutual Berhad	37.	Public Islamic Bond Fund
	38.	Public Ittikal Fund
	39.	Public Islamic Equity Fund
15. MAAKL Mutual Berhad (*formerly known as MAA Mutual Bhd)*	40.	MAA Mutual Trust - MAA Mutual Al-Faid
	41.	MAA Mutual Trust - MAA Mutual Al-Saad
	42.	MAA Mutual Syariah Index Fund
16. Mayban Unit Trust Berhad	43.	Mayban Dana Yakin
	44.	Mayban Dana Ikhlas
	45.	Mayban Dana Arif
	46.	Mayban Dana Fitrah 1 – Capital Protected
17. OSK-UOB Unit Trust Management Berhad	47.	OSK-UOB Dana Islam
18. Pacific Mutual Fund Berhad	48.	Pacific Dana Aman
	49.	Pacific Dana Murni
	50.	Pacific Dana KLSI
19. Prudential Unit Trusts Berhad	51.	Prudential Islamic Trust - Prudential Dana Al-Ilham
	52.	Prudential Islamic Trust - Prudential Dana Al-Islah
	53.	Prudential Islamic Trust – Prudential Dana Wafi
	54	Prudential Dana Dinamik
20. Pheim Unit Trust Berhad	55.	Pheim Master Trust -Dana Makmur Pheim
21. TA Unit Trust Management Berhad	56.	TA Islamic Fund
	57.	TA Dana OptiMix
22. CMS Trust Management Berhad	58.	CMS Islamic Fund
23. Alliance Unit Trust Management Berhad	59.	Alliance Dana Adib

Table 7.8: List of Islamic Unit Trust Funds (Launch as at 15 October 2004) (continued)

24. ING Funds Bhd.	60.	OneAnswer Investment Funds - ING Ekuiti Islam
	61.	OneAnswer Investment Funds - ING Bon Islam

Source: www.sc.com.my under the heading of Islamic Capital Market and biannual SAC list booklet. Retrieved on 28th November 2006

On the other hand, the demand for conventional shares is lower than the demand for shares that have been approved by the *Syariah* Advisory Council (SAC) of Bursa Malaysia. The results are not surprising since 83% of the stocks listed on Bursa Malaysia in the year 2004 had been classified as Syariah-approved securities by the Syariah Advisory Council (SAC). [58] From the year 2003, the percentage of Islamic compliant shares to total shares traded on the Malaysian stock exchange was actually high. The percentage rate was 81% for both in 2003 and 2004

The percentage of Islamic compliant shares for previous years is actually promising. The growth of Islamic compliant shares in Bursa Malaysia can clearly be seen in Diagram 7.1 (Chart 1; reproduced from the Report of the Islamic Capital Market, 2004). As the majority of securities listed on Bursa Malaysia are Islamic compliant, it increases further the development of the Islamic capital market at the national level. Greater choices of equity investment also provide Muslims and non-Muslim investors with the benefit of diverting people from investing in conventional shares. As part of the criteria for Syariah approval is for companies to have a minimal debt ratio (less than one third), investors who prefer low gearing investment may find investing in Islamic-compliant shares as more attractive.

[58] Report of Islamic Capital Market, 2004

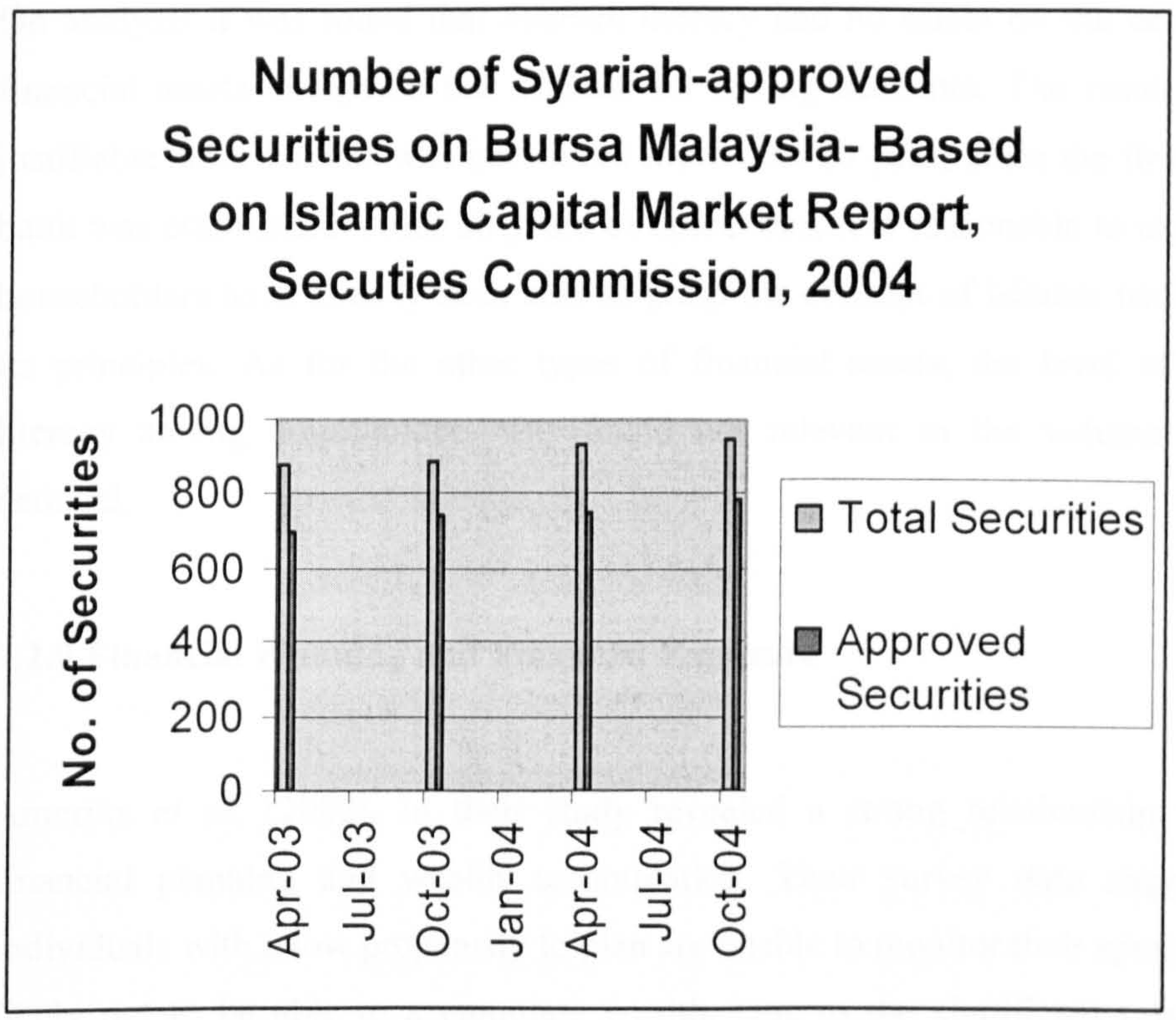

Diagram 7.1: Number of Syariah-approved Securities Listed on Bursa Malaysia

Source: Islamic Capital Market Report, Securities Commission, 2004

7.2.8 *Syariah* literacy

In the questionnaires, householders were asked to answer a series of questions on aspects of *Syariah* literacy. They were asked whether they had many knowledge of the existence of *Syariah* Advisory Board (SAC) among the financial institutions in Malaysia and of key persons on the boards. In addition, they were asked whether they knew about any of the major announcements made by the council. They were also asked to rate their level of understanding from (1) (least understand) to (5) (fully understand), about Islamic principles such as prohibition of interest, gambling and uncertainties.

On analysis it was found that *Syariah* literacy had no effect on the demand for financial assets except on the demand for saving accounts. The result may be justifiable since Islamic was introduced more than 20 years since the first Islamic bank was established. After 20 years of operations, it is reasonable to expect that householders have already been able to grasp the concept of Islamic banking and its principles. As for the other types of financial assets, the level of *Syariah* literacy among householders was found not relevant to the volume of their demand.

7.2.9 Financial Planning and Financial Exposure

Ameriks *et al.* (2002), in their study revealed a strong relationship between financial planning and wealth accumulation. Their survey data suggest that individuals with a low propensity to plan are unable to monitor their spending and likely not to be able to accumulate wealth. Due to the significant relationship between the propensity to plan and wealth accumulation, their study calls for policy makers to initiate savings- push educational programmes to build planning skills.

In this research, we examined whether financial planning activities made by householders affect the level of financial assets included in our research. We would like to know, for instance, if a householder plans his/her financial affairs well, will there be an effect on the level of saving accounts' demand. Our analysis shows that financial planning does not affect the level of demand for any financial assets.

As for financial literacy, we are aimed to examine whether the level of financial literacy affects the level of demand for financial assets. Although formal financial education is yet to be introduced for Malaysian students, we wanted to investigate whether there is a relationship between the level of financial literacy possessed by householders and the level of their demand for financial assets. The earliest stage when an individual is exposed to financial education is perhaps when they are at

the undergraduates studying accountancy, business administration and finance. Students majoring in subjects not related to business and finance are left with no financial education until they enter the workplace. Indirect inclusion of financial education in subjects such as mathematics and other subject in primary and secondary school is also almost non-existent. Basic topics in financial education may include budgeting, credit management, check book balancing and investment principles. These topics have been taught in 29 states in the U.S from 1957 onwards (Bernheim *et al.* 1997).

The results obtained from our regression analysis reveal that there is no relationship between the level of financial literacy and the demand for financial assets. We suspect that if various investment institutions were to increase educational initiatives, the level of demand for their investment products would increase. As financial literacy education is vital for individuals to be able to be informed consumers and manage their personal finance, efforts should be taken through various programs made accessible to the public. Places where financial education program may be conducted are in the high schools, colleges, universities and workplace. For this reason, topic coverage and modes of delivery have to be designed for maximum effects. Financial planning associations, then may provide resources, expertise and supervision to help educate individuals in financial matters.

Although the initiatives for financial education are still in their infancy, credit has to be given to organisations and individuals who have committed themselves to help educate the Malaysian public. Citibank, one of many foreign banks operating in Malaysia, has launched a program on financial education targeting Malaysian youngsters. In its press release dated May 18, 2005, it was announced that Citibank and Malaysian Invention and Design Society (MINDS) had launched the first comic book on good money management among primary students. The comic was titled "The Adventures of Agent Penny". 10,000 copies of the comic book, in both English and Bahasa Malaysia were distributed to primary students over the

year. To reinforce the key learning of the comic book, Citibank commissioned a local professional theatre group, Stars by Write, to produce a short play that illustrates the importance of saving and budgeting. [59] The launch of the Adventures of Agent Penny program is the latest in a series of financial education initiatives that Citibank has introduced to Malaysia and the Asia Pacific region. It also follows Citigroup's pledge to commit US$200 million (RM760 million) to financial education globally over the next 10 years. In addition to these initiatives for children, Citibank has collaborated with INSEAD, a world's top tier business school which had organised the Financial Education Summit 2005.

The focus of the summit was to advance financial literacy among youths and adults in the Asia Pacific region. Over 250 participants from the government, academic, non-profit and private sectors in Asia Pacific and around the world participated in the summit. The one-and-a-half day event included high-level discussion forums about the social and economic imperatives for improving financial literacy levels in the region and ways for developing national financial literacy frameworks. Experienced financial education advocates, educators and practitioners also share in different training approaches and best practices to engage adults and youth and increase their financial understanding and confidence.[60]

Other organisations promoting financial education include Bank Negara Malaysia (BNM) and Permodalan Nasional Berhad (PNB). Initiatives taken by BNM include establishing "Bank Negara Malaysia Link". This link provides information, advice and services for the public on Bank Negara and other financial issues. Services and objectives of BNM link have been laid out on its website as follows:

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[59] Information on the programmes is available at: www.kidswealthfoundation.org. Retrieved on 3rd July 2006

[60] http://www.citigroup.com/citigroup/press/2005/051122a.htm. Retrieved on 24th December 2005

"Bank Negara Malaysia LINK represents one of Bank Negara Malaysia's important points of contact with the general public. Bank Negara Malaysia LINK acts as a centralised point of contact to facilitate a rapid and effective response for members of the public and small and medium enterprises (SMEs) in matters related to the financial sector. Bank Negara Malaysia LINK through its exhibitions, self-service kiosks and booklets also provides consumer financial education as well as awareness on the role of Bank Negara Malaysia in nation-building to the public.

Bank Negara Malaysia LINK provides face-to-face customer service to walk-in visitors on general enquiries and public complaints. Personnel of Bank Negara Malaysia LINK are available to assist and effectively address and attend to matters in the areas of banking, insurance, SMEs financing, currency as well as other areas under the preview of Bank Negara Malaysia.

Through its exhibitions, Bank Negara Malaysia LINK provides the public with information on access to financing especially by the SMEs as well as information on conventional and Islamic banking and insurance and *takaful*. Information on the role and responsibilities of members of the public as consumers of financial products and services are also provided. A section of the exhibition area focuses on the role and functions of Bank Negara Malaysia and its historical contribution in shaping the country's economy and financial sector from the 1950s to date."

Source: http://www.bnm.gov.my/bnmlink/index.htm. Retrieved 24th December 2006

The introduction of Bank Negara Malaysia Link is more conceptual than practical, with fewer prospects for actual involvement by the general public. However, the initiative was made by BNM to publish the two books on financial planning, "Buku Wang Saku" (Pocket Money Book) and "Buku Perancangan dan Penyata Kewangan Keluarga" (Family Financial Statement Book) for the year 2006. [61]Introduced in 1999, the books are now in their eighth series. These publications are part of Bank Negara Malaysia's on-going effort to enhance public awareness on the importance of managing personal finances and financial planning. BWS is designed specially for students and the 2006 edition carries the theme "Financial education as a foundation for financial planning". To date, in collaboration with the commercial banks under the School Adoption Programme, a total of 4.5 million copies of BWS has been distributed to the students of more than 7,000 schools all over Malaysia. BWS 2006 has two versions, one for secondary school students and one for primary school students. The BWS for secondary school students focuses on learning of accounting and financial education while BWS for primary school students emphasises on the use of the BWS as a tool to manage pocket money.

The BPPKK or Household Planning and Account Book 2006 is designed to assist families to manage their budget and plan their household income, expenses, savings and investments. The book includes a section that features the concept of "Life and Financial Planning" for a family. BPPKK has also been distributed through selected distribution channels such as selected book stores and Kedai Pos 2020 since 1999 to reach adult Malaysians, in particular, women and workers. The objective is to provide greater knowledge and awareness in financial planning and budgeting. These books are available in commercial banks and Kedai Pos 2020 (Post office shop outlet) and selected bookstores.

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[61] Information on the programme available at: http://www.duitsaku.com/. Retrieved on 19th August 2006

In addition, Bank Negara Malaysia and the Association of Banks in Malaysia (ABBM) have launched "Malaysia BankingInfo", a one-stop information centre about money and banking.[62] The objective is to make Malaysians more aware of their rights and responsibilities with regard to banking products and services.

Permodalan Nasional Berhad (PNB), as the main unit trust provider in Malaysia, has played its part in educating the public. One of its initiatives is the "Financial Simulation" document which has been made available on its website[63]. The simulation, notwithstanding its sophisticated headline, only deals with the amount of savings households must provide in order to meet their children's educational costs. The programme is a simplified approach to understanding financial planning, which can be further enhanced in the future. As PNB is the one of the major institutions involved with householders, it should be able to offer more than the simple financial simulation currently available.

In addition, PNB also organised "Minggu Amanah Saham Malaysia" (MSAM) (Unit trusts Week). According to PNB, the MSAM programme is a social effort to educate the public on investment and encourage them to actively participate in the country's unit trust industry. Until now, six MSAM programme have been organised. On its website, PNB states that "MSAM is presented in a comprehensive and creative manner combining exhibition and edutainment-based activities. Besides learning more about PNB and its investment-based activities, visitors from all walks of life can take part in various education programmes organised throughout the week-long MSAM."

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[62] The information available at: http://www.bankinginfo.com.my/. Retrieved on 29th November 2006

[63] The financial simulation is available at: http://www.pnb.com.my/index.cfm. Retrieved 30th November 2006

At present, many authors have written books on financial planning. Among them are Rajen Devadason, Azizi Ali, Dr Rosli (Chef Li) and Hajjah Rohani Datuk Shahir. Mr Rajen Devadason is a practicing Certified Financial Planner, currently has written nine books. The title of his books includes "Your A-Z guide to the Stock Market- And all YOU need to know about Capital Terms" (1997), "Financial Freedom-Your Guide to Lifetime Financial Planning" (1998) and "Financial Freedom 2- Through Malaysian Equities and Unit Trusts (2000). Recently he has written motivational books related to financial management and investments in the form of e-books. [64]

Mr Azizi Ali, is another Malaysian author writing motivational books related to financial wellbeing. Among his books are "The Millionaire Chronicles", "How to Become a Property Millionaire", "The Millionaire in Me", "Millionaires are from a different planet" and several series written in the Malay language. [65] Another author is Hajah Rohani, who wrote a Malay language book titled "Cukup Wang Hati Tenang" (Enough money ensures adequate hearts). This book incorporates the concept of Islamic financial planning. As the writer's company is one of the education providers of Islamic financial planning, she applies her knowledge in the book. Another author is Dr Rusly Abdullah who is better known as "Chef Li". He wrote "Jutawan Senyap" (Silent Millionaire), a book which is also a financial planning-motivation book.

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[64] To view Rajen Devadason's selection of books, visit: http://www.rajendevadason.com/RD/books.asp. Retrieved 24th August 2006

[65] His website is at: http://www.millionairesplanet.com/

7.3 Conclusion

Our main research aim was to examine sets of factors affecting the levels of demand for financial assets namely unit trusts, shares and saving accounts. Three sets of regressions have been performed on income, wealth and net wealth for types of financial assets. Our analysis shows that all economic variables are significant in determining the level of demand for financial assets. Moreover, a life-cycle effect prevails for all age categories of young, middle-aged and older householders in the demand for unit trusts. On the demand for shares and saving accounts, a life-cycle effect exists between young and older households. Gender is the only demographic variable that is significant in the demand for all financial assets except in the regression on the demand for unit trusts. Marital status and race do not affect the demand for financial assets. The level of education is irrelevant for the demand for financial assets except partly in the demand for shares. Sector of employment which householders belong partly explain the variation in the demand for unit trusts and saving accounts. There are significant differences between Islamic and conventional financial assets for the demand for unit trusts and shares, but not for the demand of saving accounts. *Syariah* literacy only affects the demand for saving accounts but not the other two types of financial assets. Neither financial planning nor financial literacy affects the level of demand for financial assets.

CHAPTER 8

FINDINGS OF SEMI-STRUCTURED INTERVIEWS WITH CERTIFIED FINANCIAL PLANNERS

8.1 Introduction

The main aim of our research primarily concerns the factors driving the level of demand for unit trusts, shares and saving accounts. Factors tested in our analysis include demographic, economic and the socio-economic backgrounds of householders. In addition, householders' involvement with certified financial planners, their level of financial literacy, *Syariah* literacy and their level of propensity to plan their financial affairs are also tested for their role in determining the level of demand for financial assets. We have performed a field study on relevant householders of their demand for financial assets named above. A set of questionnaires was distributed to clients of the major provider of unit trusts, Permodalan Nasional Berhad, clients of several stock broker companies concerning the demand for shares and clients of various banking and saving institutions on the demand for saving accounts.

In short, we wanted to learn about the characteristics of householders who demand unit trusts, shares and savings accounts and be able to compare and contrast whether households with different characteristics tend to demand more of one type of financial asset than another. From the regression results, we have learned that householders hiring the services of certified financial planners show a greater demand for shares than those who do not. Apart from the demand of shares, there is no significant relationship between the levels of demand for financial assets and householders involvement in formal financial planning with certified financial planners.

In addition to examining the level of demand for financial assets in isolation, we set out to learn about the characteristics of householders who actively manage their financial portfolios via engagement with certified financial planners. By doing so, more precise information about the characteristics of householders who actively manage their financial portfolios themselves can be obtained. By collecting data using questionnaire with certified financial planners more insight on the demographic and economic characteristics of householders as financial planners' clients as well as their level of financial literacy, *Syariah* literacy and propensity to plan, can be further studied. As financial planners are trained professionals in the area of financial asset allocation and demand, their data and opinions are of a very credible nature.

Furthermore, by collecting data from certified financial planners, we may explore more the current prospects of financial planning are a catalyst for increased demand for the various types of financial assets. Financial planning, apart from providing the platform for householders to plan their financial affairs, may be as well a successful channel of distribution for various types of financial assets. The Securities Commission in its current Capital Market MasterPlan (CMP) of 2001-2010 has pointed to financial planning as a critical component of capital market development in Malaysia.

Under its objective, too, of promoting an effective investment management industry and a more conducive environment for investors, the plan states that:

"It is also important to continue educating retail investors of the investment management opportunities available to them. Therefore, measures will be taken to facilitate the development of a domestic financial planning industry and to co-ordinate a greater quantity and frequency of promotional and educational programmes to increase awareness among investors of investment products and services"

Source: http://www.sc.com.my/eng/html/cmp/chapter3.pdf. Retrieved on 5th January 2007

Deputy Chief Executive of the Securities Commission, Datin Zarinah Anwar, at the 4th International Financial Planning Advisors conference 2004, addressed this fact in her keynote address for the conference:

"The opportunities for the financial planning industry are therefore significantly enhanced, and will undoubtedly continue to grow, especially with the ageing of the population, the increasing range of financial opportunities and the greater financial literacy of the investing community. The Securities Commission (SC) sees the development of the financial planning industry as a critical component of capital market development in Malaysia."

4th International Financial Planning Advisors Conference 2004, Sunway Pyramid Convention Centre, Petaling Jaya. Malaysia, 3 April 2004.

First, we questioned those financial planners on their background such as their qualifications, number of years they had been in operation as well as on their age and gender. On the question of their experience in financial planning we were keen to learn about the types of services they offered, methods of compensation and the types of clients the dealt with. Most clients, we were told, were householders rather than companies. We asked about their clients' demographic as well as their economic background. We were particularly interest to learn about clients' annual income and net worth.

In order to learn more about the level of financial planning expertise of householders who had chosen to hire them we requested planners to rate their clients' skills as "poor", "medium" or "excellent". The areas of financial planning expertise that were rated concerned establishing financial goals, knowledge on basic characteristics of financial products, money management, investments,

retirement planning, tax, insurance and estate management. We also sought information on their clients' level of knowledge on Islamic financial planning.

In addition to the above issues, we also asked several questions on Islamic financial planning such as the percentage of their clients engaging in Islamic financial planning. We also asked the planners how they rated their own level of knowledge on Islamic financial planning and sought their opinion on the most effective ways to promote Islamic financial planning

8.2 Findings Related to Financial Planners

All financial planners have the certified financial planning qualification (CFP) awarded by the Financial Planning Association of Malaysia (FPAM). All of them have to register with FPAM for them to be able to operate legally as financial planners in Malaysia. In addition to that, Mr Poedjo Soesilotomo of ATA Capital stated that he was now recognised as a Registered Financial Planner (RFP) by the Institute of Advanced Financial Planner in Canada, as a Fellow Chartered Financial Practitioner (FChFP) by the Insurance and Financial Practitioner's Association of Singapore and Islamic Financial Planning Ceritificate (IFPC) by FPAM. Mr Robert Foo, apart from having his CFP qualification, is also the holder of a Master's degree in Business Studies. Karen Ng, on the other hand, is licensed as a Chartered Financial Consultant (ChFC), a Chartered Life Underwriter (CLU), a Life Underwriter Training Fellow (LUTCF) and a Registered Financial Planner (RFP) apart from CFP.

The bar chart below shows the number of years financial planners had been in practice. One financial planner has been operating for less than a year, three of them for more than a year and three of them have the experience of being a financial planner for more than 3 years.

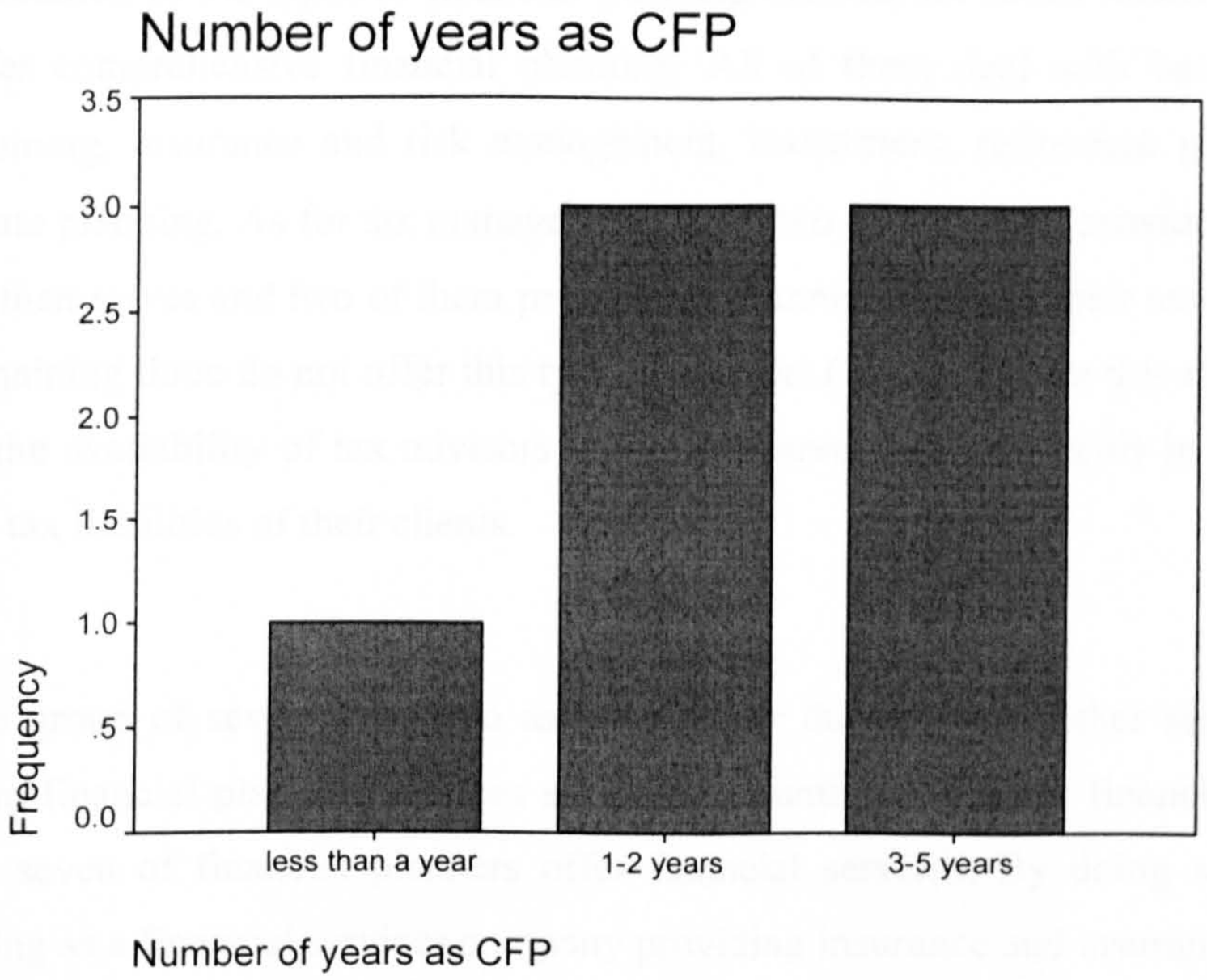

Diagram 8.1: Number of Years Financial Planners Operate

In relation to age of financial planners, three of them are aged from 36 to 40, one person is aged 41 to 50 and the remaining three of financial planners are all aged more than 50. As financial planners are required to have undergone rigorous amount of training, none of them is aged less than 36 years. As for the gender distribution, four out of the seven financial planners interviewed are men.

In addition questions about their practice background were also been asked. The areas of coverage on financial planners' practice information are as follows:

1) Types of financial planning service offered, partial or comprehensive;
2) Provision of other services apart from financial planning;
3) Types of major clients;
4) Number of clients; and
5) Types and rate of fees

In relation to the types of financial planning offered, all seven financial planners offer comprehensive financial planning. All of them deal with basic financial planning, insurance and risk management, investment, retirement planning and estate planning. As for tax management, only two of the seven provide the service by themselves and two of them provide tax planning through their associates. The remaining three do not offer this type of service. One reason for this might be due to the availability of tax advisors who offer more specialist skills in minimising the tax liabilities of their clients.

The group of seven were also asked whether they provide other services apart from financial planning services such as accounting and other financial services. All seven of financial planners offer financial services. By doing so, they are acting as a financial services company providing insurance and insurance products to their clients. Usually, financial planners will be compensated by commissions from the provider of the financial products recommended and sold by them. One financial planner provides both accounting and financial services. One financial planner mentioned about that one service he provided which could be classified as non-financial was will-writing and *Hibah*[66]. He also dealt in trust creation and mortgage restructuring. Another financial planner is offering the service of personal effective mentoring. He delivers lectures and writes books on financial planning and investing.[67] The remaining financial planners provide financial services but not accounting services.

As for the types of major clients, six out of the seven financial planners stated that individuals are their typical clients rather than institutions. They have as their clients both individuals and corporate bodies, but individuals form the bulk of their client base. On the numbers of clients currently managed by financial

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[66] *Hibah* is one means to distribute one's assets in Islamic financial planning. Wealth involved in *hibah* may be transferred during the transferor's lifetime or in estate distribution of the deceased.

[67] Rajen Devadason has written eight books featuring issues ranging from stock market guide, financial freedom and financial self help books. Information is available on http://www.rajendevadason.com/RD/books.asp.

planners, two of them are currently managing 11 to 20 clients and one 41-50 clients. The other four planners are currently managing more than 50 clients. The information can be easily analysed in the bar chart below:

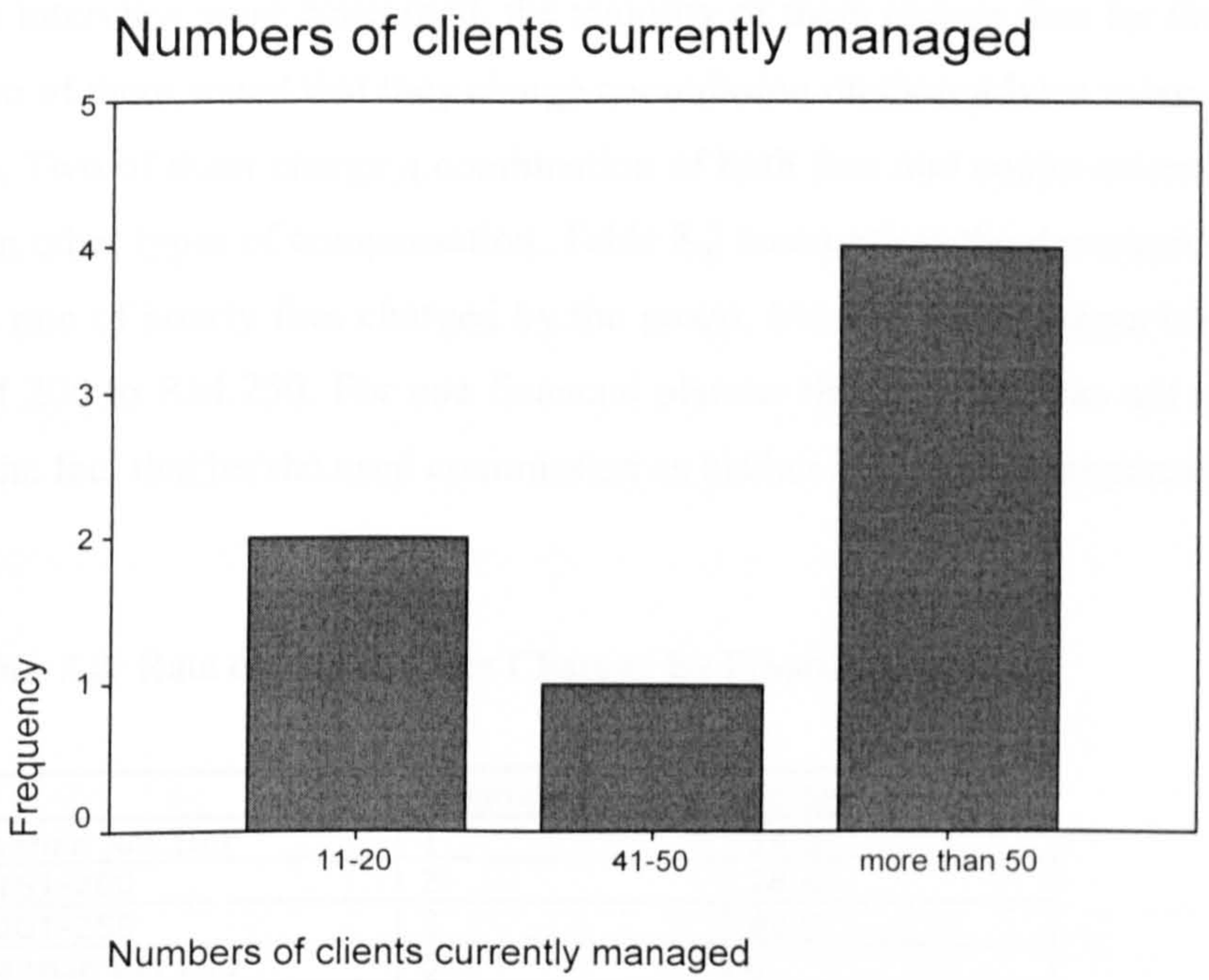

Diagram 8.2: Numbers of Clients Currently Managed by Financial Planners

Types of fees charged by financial planners are one of the controversial areas in the personal financial planning industry. Financial planners should act independently while serving clients in a professional relationship. Independence however, can easily be compromised in the case of financial planners because, in addition to having a contract to serve their clients, they may also have entered contracts with financial service providers to sell their products. Financial products in this case range from various types of personal insurance products to unit trusts products. As agents who are selling these products, they are entitled to receive certain amount of commission. The economic reward from such involvement can affect the professionalism of financial planners in recommending the best solution

to their clients' financial objectives and situation. They might be attempted to sell financial products that offer them the highest amount of commission rather than the products that best suit the financial objectives and position of the clients.

We asked the seven financial planners involved in our interview how they are usually recompensed for their service. As far as the financial planners involved in our interview were concerned, the majority of them charge fees for their services. Two of them stated that they charge commission on their advice more often than a fee. Two of them charge a combination of both fees and commissions more often than other types of compensation. Table 8.2 summarises the descriptive results for the rate of hourly fees charged by the group. Most of them charge hourly fees of RM 200 to RM 250. For one financial planner the question was not relevant due to the fact that he/she used commission as his/her method of compensation.

Table 7.2: Rate of Hourly Fees Charged by Financial Planners

	Frequency	Percent (%)
Less than RM 100	1	14.3
RM 151-200	2	28.6
RM 201-250	3	42.9
More than RM 250	0	0
Not Applicable	1	14.3
TOTAL	7	100

Source: Based on Author's Own Calculations

8.3 Findings Related to Financial Planners' Clients

Another series of questions was asked of the planners about their clients. The questions relate to demographic and economic background, monthly saving rates and levels of financial planning's skills.

Demographically, most financial planners (5 out of 7) reported that the age of their typical clients is between 41-50 years old. Two financial planners stated that

the majority of their clients are of younger age being 31 to 40 years old. None of them reported having as their clients, individuals under the age of 30 and over 50. These findings are in line with our life-cycle hypothesis which states that householders aged 31-50 tend to accumulate wealth, actively manage their assets and acquire more financial assets than their younger and older counterparts. At a young age of less than 30, householders are still in the saving process, do not actively manage their financial affairs formally and use the services of financial planners. At a matured age of more than 50, householders have established themselves financially and are probably not looking for investment and risk management, with which financial planners are usually associated. At a more mature age, they should, by right, be more concerned with planning estate management and will-writing. This is a view commonly shared by the Malaysian public and thus it should come as no surprise to learn that none of our group of seven reported as having as their typical clients people over the age of 50.

Table 8.3: Age of the Typical Client of Financial Planners

	Frequency	Percent (%)
Less than 30 year	0	14.3
31- 40 years	2	28.6
41-50 years	5	71.4
More than 50 years	0	0
TOTAL	7	100

Source: Based on Author's Own Calculations

As financial planning is a service that requires a close professional-client relationship, the gender of clients, according to our interview, is dictated by the gender of the financial planners. As five of our financial planners interviewed are men, we found that five financial planners report having males as their typical clients. The remaining two financial planners, who are women, stated that their typical clients are female individuals. As for the racial composition of the clients, most of our financial planners reported that their typical clients are Malays. Two of them reported that the majority of their clients are Chinese and only one stated that his clients are Indian. Again, from the interview we found that the race of

clients dictated their choice of a financial planner from the same racial group. Thus we may suggest that familiarity, common backgrounds, gender and race are important factors for a client when choosing his financial planner.

In addition to the demographic background, we also asked questions about the financial position of our planner's clients, about their annual income, total net worth and their monthly saving rates.

Most financial planners reported that their typical clients have an annual income of RM 100,000 to RM 300,000, with a median of RM 200,000. The Gross Domestic Product (GDP) of Malaysians is 9000 USD that is around RM 34,000.[68] From the figure, we may deduce that the income of individuals hiring financial planners is well above the income of the average Malaysian population. The bar chart in Diagram 8.3 below illustrates the annual income of the typical clients of all seven financial planners involved in our interview.

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[68] From CIA World Factbook as at January 1, 2005. Available on http://www.indexmundi.com/g/r.aspx?c=my&v=67

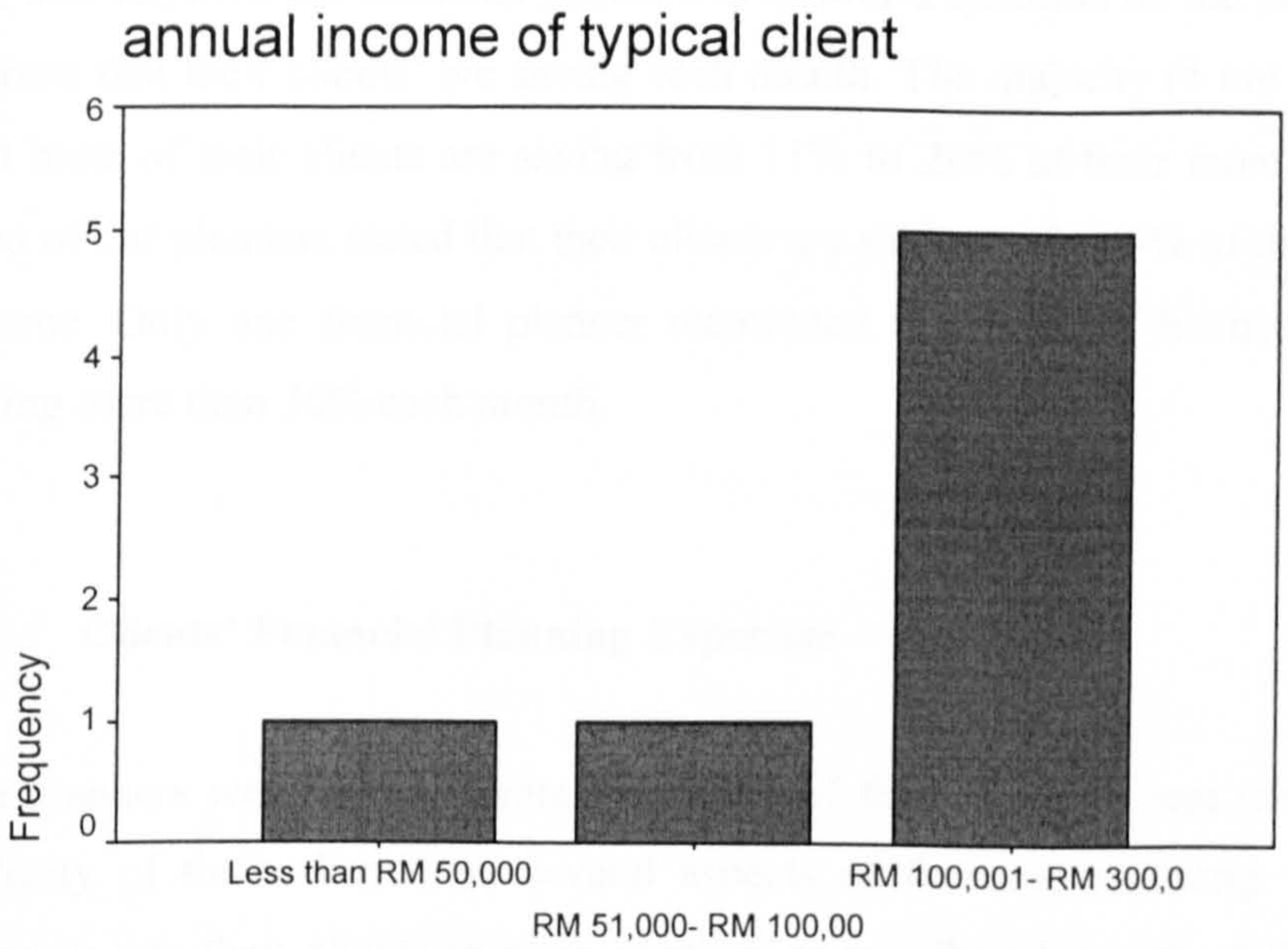

Diagram 8.3: Annual Income of the Typical Clients of Participating Financial Planners

In addition, 5 out of the 7 financial planners stated that their typical clients' net worth is between RM 100,000 and RM 300,000. One planner specifically stated that his/her clients typically are financially worth more than RM 1 million. Table 8.4 exhibits the entire descriptive results of the net worth of financial planners' typical client.

Table 8.4: Net Worth of Financial Planners' Typical Clients

	Frequency	Percent (%)
Less than RM 30,000	1	14.3
RM 30,001- RM 50,000	0	
RM 100,001- RM 200,000	1	14.3
More than RM 200,000	5	71.4
TOTAL	7	100

Source: Based on Author's Own Calculations

We also required our financial planners to answer a question on the percentage of income that their clients' are saving each month. The majority (4 out of 7) stated that most of their clients are saving from 11% to 20% of their monthly income. Two of our planners stated that their clients are saving 21%-30% of their monthly income. Only one financial planner mentioned that most of his/her clients are saving more than 30% each month.

8.4 Clients' Financial Planning Expertise

The planners were asked to rate the ability of their typical client (the ability of majority of their clients) on several aspects of financial planning. They were asked to rate their clients as poor, medium or excellent for each of the financial planning aspects.

We recorded that three of the seven planners stated that majority of their clients are have medium skills in evaluating their financial goals. Clients often need assistance to establish and evaluate their financial goals. Two of the planners stated that their clients' skills on the matter are poor. The remaining two stated that, in their opinion their clients are able to evaluate their financial goals in accordance with their current financial position.

The financial planners' assessment on the financial planning skills of their typical client includes all areas involving financial planning. Apart from an evaluation of the financial goals discussed above, other skills involved are basic knowledge on financial products, money management, investment, retirement, risk, tax and estate planning. Overall results are shown in Table 8.5.

Table 8.5: Financial Planners' Evaluation on the Level of Financial Planning Skills of Their Typical Clients

	Poor	Medium	Excellent	Total responses
Evaluating Financial Goals	2 (28.6)	3(42.9)	2(28.6)	7
Basic Knowledge on Financial Products	1(14.3)	5(71.4)	1(14.3)	7
Money Management	1(14.3)	6(85.7)	0	7
Investment	2(28.6)	4(57.1)	1(14.3)	7
Retirement Planning	5(71.4)	2(28.6)	0	7
Risk Management (Insurance)	4(57.1)	2(28.6)	1(14.3)	7
Tax Planning	5(71.4)	2(28.6)	0	7
Estate Planning	7(100)	0	0	7

Note: Figures in brackets are in percentage. Source: Based on Author's Own Calculations

In addition, we requested the planners to provide their opinion on the financial planning awareness among Malaysian householders in general. Below is a series of their opinion (quoted directly from their responses in the written interviews):

"The awareness level is still very low amongst Malaysian households, especially the Malays, as they are typically expectant of government aid and/or subsidy for their future (children's education, government retirement benefit program). Non Malays seem to be more prepared with a retirement fund and have at least basic plans to ensure each child has education funding."

"The awareness is still low as the FP industry is also in its infancy stage. Given time, I foresee that the average Malaysian would want to meet a financial planner to discuss issues related to FP. However, I still believe that the Insurance, Unit Trust and Will Writing Professional would be the ones making inroads in

promoting financial planning, as they are more sales/marketing oriented. The Financial Planners from the accountants, remisiers, etc. would be slower in promoting financial planning to the masses as they are known to be 'order takers' unless they too become more aggressive in marketing their know-how."

"Awareness is low but gradually improving due to promotion by FPAM and also because of the support by Securities Commissions and Bank Negara Malaysia. However, the wrong awareness is being created because of vested interests of the product manufacturers (e.g. the Unit trust companies and Insurance companies) who want financial planning to be a way for their tied agents to push more of their products. Although financial products are part of what the financial planning process is, the objectivity and independence of the financial planners is even more crucial to ensure the public/clients get the best products for their personal circumstances and will not be "pushed" products which in the long run is not to their best interests. This is where the independence or unbiased advice of the financial planner is crucial to ensure the public/client obtains real value from the expertise and experience of the financial planner. Otherwise the financial planner will be just a salesman pushing his companies products but with a glorified title."

"Low level but it is increasing slowly."

"Moderate, with a certain pocket of the population possessing a great deal of knowledge"

"Still low"

"Awareness is still low. Many of them view personal financial planning as sales of financial services / products; that they do not require financial planning and that the service should be given free."

8.5 Islamic Financial Planning

Due to our concern to know more about Islamic financial planning, we asked series of questions related to Islamic financial planning. First, we asked the planners whether they provide the service of Islamic financial planning. We then asked them to state the percentage of their clients who favour Islamic financial planning in comparison to this content with traditional financial planning. Our seven financial planners were also required to evaluate themselves on the level of their on knowledge on Islamic financial planning. At the same time, we also asked them on their clients' level of knowledge on Islamic financial planning. Finally, they were also asked to give their opinion on the most effective ways to promote Islamic financial planning.

Six out of the seven financial planners stated that they do provide Islamic financial planning for their clients. The percentage of their clients involved in Islamic financial planning is reported in Table 8.6.

Table 8.6: Percentage of Financial Planners' Clients Involved in Islamic Financial Planning

	Frequency	Percent (%)
Less than 10%	2	28.6
31%-50%	1	14.3
More than 50%	3	42.9
None	1	14.3
Total	7	100.0

Source: Based on Author's Own Calculations

From the table, we can see that two financial planners have 10% of their clients involved in Islamic financial planning. Most planners (3 out of 7) reported that the proportion of their clients who are engaged in Islamic financial planning totals more than 50% of client-base.

More critically, we wanted to discover the extent of our seven planners' own knowledge of Islamic financial planning. If more financial planners are equipped with proper level of understanding, we can predict that Islamic financial planning will be more successful in the future. Sufficient knowledge on this area will broaden the range of services which can be offered by financial planners. This should encourage them to be more willing to promote Islamic financial planning to the public. Table 8.7 summarises our findings.

Table 8.7: Financial Planners' Level of Understanding on Islamic Financial Planning

	Frequency	Percentage (%)
Understand the basics of Islamic financial planning	3	42.9
Well versed but not practice much of Islamic Financial Planning	2	28.6
Well versed and practice Islamic Financial Planning much	2	28.6
Total	7	100.0

Source: Based on Author's Own Calculations

In relation to the financial planners' understanding on Islamic financial planners, three financial planners mentioned that they have basic knowledge of Islamic financial planning, but not at current offer the services of Islamic financial planning due to the lack of demand from their clients. They fully understood that Muslim clients are not allowed to invest in activities related to alcohol, gambling and pork. The same goes to dealing with conventional financial institutions such as banks and insurance companies. They, however, stated that they did not update themselves on the latest rulings passed by the *Syariah* Advisory Council. The remaining two financial planners reported that they are well versed with the practice of Islamic financial planning but do not practice much of it due to the lack of clients wanting that particular service from them. They stated that they updated themselves with latest rulings and understood that Muslim clients' objectives are usually not only related to economic, but also to religious considerations such as their objective to put their savings for pilgrimage and towards furthering education in Islamic courses. The remaining two of them stated that they are well versed with Islamic financial planning and provide the service of Islamic financial planning to their clients. One financial planner in particular mentioned about his active research on Islamic inheritance and estate planning (*Faraid*).

Finally, we asked our group of planners to offer their opinions on ways to promote Islamic financial planning. Most of financial planners stated that direct communication with clients is one of the best ways to promote Islamic financial planning. One planner stated that mass media marketing can be exploited to market Islamic financial planning. Other suggestions are education initiatives through talks to the public on the opportunities and advantages attached to Islamic financial planning and networking. More non-Muslims could also be encouraged to participate in the promotion and marketing of Islamic compliant services and products. Two financial planners highlighted on governance and recognition of Islamic financial planning opportunities by parties such as Bank Negara Malaysia (BNM). The support of the Securities Commission (SEC) is also paramount in

encouraging more financial planners to become involved in Islamic financial planning. Relevant regulators, as stated by one financial planner should introduce Islamic Financial Planning Courses (IFPC) to CFPs making it a prerequisite for financial planners who advise Muslim clients.

8.6 Conclusion

The data collection session with financial planners is useful in many ways. First we had been able to learn more on the practice of financial planners in Malaysia, for instance their qualifications, types of services offered and rates and method of compensation. In addition, several aspects of financial planners clients are also been discovered from the interview results. Clients of financial planners are usually from the high end of income earners and having rather high total amount of net wealth. As to the clients' level of financial planning knowledge, financial planners stated that it is generally low and in need of more education in many aspects. Finally, we had been provided with vital aspects on Islamic financial planning such as financial planners' practice and knowledge on Islamic financial planning. More importantly, we had been provided with practical suggestions on how to promote and improve Islamic financial planning in Malaysia.

CHAPTER 9

CONCLUDING REMARKS, IMPLICATIONS AND RECOMMENDATIONS

9.1 Introduction

In this chapter, we summarise our results and relate them to the main findings of the literature reviewed. We also state the extent to which we believe that the aims and objectives of our research have been met. We will discuss the implications of our findings on the publics' awareness and knowledge of Islamic financial planning products, on the attitudes of financial planning policy makers and other institutions offering financial products and on the ensuing implications for Malaysian householders. We will alternately discuss the implications in the light of our findings in relation to the wealth accumulation and savings atmosphere in Malaysia. The integration of such knowledge will assist relevant parties to make more informed decisions on policies in general and investment and wealth accumulation for householders in particular. As for academic interest, we will provide suggestions for possible future research.

9.2 Summary of Findings

This research mainly considers the factors that affect the wealth accumulation of households via the acquisition of financial assets. The framework of the research is based on the life-cycle effect on this accumulation process. Wealth accumulation, inspired by life-cycle motives is based on the practice of individuals to maximise their consumption lifetime utility rather than at a specific time period. Due to lifetime maximisation, a rational consumer will consume at a stable rate that corresponds to their expected average consumption over their life-cycle. They will try to smooth their consumption and wealth accumulation process over time to attain wealth considered appropriate for their retirement. This hypothesis is also known as savings and wealth accumulation for retirement

purposes. Works on this hypothesis is often based on the works of Duesenberry (1949), Modigliani and Brumberg (1954) and Tobin (1967). According to them, the propensity to consume and the propensity to save are different at various stages of an individuals' life. In order to satisfy their need for funds during retirement, householders need to maximise their savings and wealth accumulation during their midlife cycle since they are not able to do so when they are younger due to their limited income and lack of experiences in the wealth accumulation process. This research is aimed at examining whether this hypothesis is valid for the three most commonly held financial assets in Malaysia namely unit trusts, shares and saving accounts.

This research is not only a novel approach on the examination of the life-cycle effect in Malaysia, but also includes factors that concern Islamic financial assets such as household preferences for conventional and Islamic financial assets, *Syariah* literacy and aspects of financial planning in addition to the "benchmark" examination of factors such as income, the demographic and socio-demographic backgrounds of households and the risk-taking behaviour of householders. By considering this latter set of factors, much more can be learned about estimations of the demand for financial assets in Malaysia. The inclusion of such factors is relevant since Malaysian households have been significantly exposed to Islamic financial products in addition to conventional products that are also available in the west.

Based on the data, we can generalise that the life-cycle effect can be found in the level of demand for unit trusts by all age groups; i.e. young, middle-aged and mature age groups. It is also clear that householders aged more than 50 significantly hold more unit trusts than those aged between 30 and 50. On the demand for shares and saving accounts, a life-cycle effect exists between the middle aged and older householders, with the older householders holding more of these assets. Although our results also reveal a life-cycle pattern in the demand for financial assets, the stage of the life-cycle where the demand for financial assets peak is inconsistent with the results from previous studies conducted. Studies

conducted in the U.S (Amerkis and Zeldes; 2001) and in European countries as reported by Guiso, Haliassos and Jappeli (2001) suggest that a life-cycle pattern exists in the level of demand for shares: minimal when young, peaking in the fifties and declining afterwards. In our case, the demand for unit trusts, shares and saving accounts is higher for householders aged more than 50 than for householders aged 30 to 50. Our results suggest that householders in Malaysia accumulate financial wealth later in their lives.

Apart from testing for the existence of a life-cycle effect on the demand for financial assets, all economic variables such as income, wealth and net wealth are all significant in the determination of the level of demand for all the types of financial assets under question. However, income, wealth and net wealth elasticities affect unit trusts, shares and saving account balances differently. For example, when we look at the goodness of the regression model as the whole (deduced from the observation on R-Squared value), we can see that wealth and net wealth elasticities of demand are more important than those of income elasticities of demand for unit trusts and shares. In contrast, all three types of economic variables affect, almost in the same way, to saving account balances of householders. From our findings, we can suggest that stocks of wealth are more appropriate in determining the level of demand for unit trusts and shares but that the flow of both income and stocks of wealth are equally important in estimating the level of saving account balances.

Other dimensions added in the multiple regression analysis concern the level of demand for financial assets are the demographic and socio-demographic effects. Researches on the level of demand for financial assets such as that by Jan Tin (1998, 2000), Poterba and Samwick (1997), Hall and Mishkin (1982), Zeldes (1989) and Lusardi (1996) and Dar (2005) consider that demographic and socio-demographic factors important in studying the level of demand for financial assets and investment. We include several of these factors in our research.

From the many variables tested, the gender of the respondents is the only demographic variable that is significant in the demand for all financial assets (except in the regression for the demand of unit trusts). Marital status and race does not affect the demand for any types of financial assets. Levels of education are irrelevant for the demand for financial assets except partly in the demand for shares. This is probably because, in Malaysia, householders' earning power does not correlate with their education levels due to the uncertainty of job market. The sector of employment to which householders belong partly explains the variation in the demand for unit trusts and saving accounts.

More importantly, our research adds other important variables that we perceive to affect the level of demand for financial assets in Malaysia. Variables measuring the level of risk tolerance, certified financial planners' involvement, households' preference for conventional and Islamic financial assets, *Syariah* literacy and respondents' propensity to plan and their financial exposure have been tested accordingly. To test for the effect of these factors, several hypotheses have been established based on our research questions. Our regression analysis has successfully answered the hypotheses posed in our research.

In the demand for unit trusts and shares, but not for the demand of saving accounts, there are significant differences between attitudes on the preferences for Islamic and conventional financial assets. *Syariah* literacy only affects the demand for saving accounts but not for the other two types of financial assets. Neither financial planning nor financial exposure affects the level of demand for any type of financial assets.

In all, the analysis performed has successfully answered all the research questions with all hypotheses constructed tested. The main research objective of identifying and analysing the sets of factors driving the variation of the demand for financial assets has been achieved by way of multiple regression analysis.

In addition, we enriched the research by extending our examination on the demand for financial assets by surveying the financial planners who provide financial planning services to the Malaysian public. It has been a second aim of the research to examine the issue of financial planning and the financial literacy of Malaysian households. Particular emphasis has been given to the level of financial knowledge of individuals engaged in financial planning. Financial planners themselves have also been asked to rate their clients' level of financial literacy such as their knowledge on financial products, risk management, tax and retirement planning. Other aspects of financial planning such as financial planners' practice information such as their qualifications, types of services offered and the amount of fees charged comprised other information we gathered. This has enabled us formally to survey financial planning practices in Malaysia. We think this valuable because such research in financial planning is currently lacking.

In relation to financial planners' client financial planning skills, the survey with seven financial planners revealed that 3 out of our 7 financial planners stated that majority of their clients have medium skills when evaluating their financial goals. In general, a majority of our 7 financial planners think that their clients have medium to excellent skills in basic knowledge about financial products, money management and investment. On the other hand, most of them claim that their clients have poor skills in retirement planning, risk management, tax planning and estate planning. As households in general consider having decent resources for retirement, more education is needed in order to avoid poverty during old-age. We will, therefore offer recommendations on how to mitigate the problem of a lack of understanding of these aspects of financial planning among households.

9.3 Implications of the findings

Implications of our research can be analysed in many aspects such as on knowledge, policy makers and service providers of financial assets. The research can be made useful for better understanding on financial assets demand depending on the successful dissemination of the research findings in journal publications, magazines and newspapers as well on the televisions and radios' programmes. Research collaboration between universities and practitioners will increase the likelihood of the researchers like ours to be consulted when they attempt to make business decisions. To increase the usefulness of our research, we will discuss the research implications under headings as follows.

9.3.1 Implications for knowledge

The implications of our research on the effect of age on financial assets demand are: 1) As financial assets are categorised into risky and safe (shares and unit trusts are risky and saving accounts are not risky because they are guaranteed by the government), the holdings of certain types of financial assets by certain types of age group can affect the wealth level of households. If over-55 households hold more risky assets, it implies that they are taking more risks than they need to and will thus expose their retirement funds to various types of investment risk. Our findings are that older households demand more unit trusts than younger households. One reason for this, highlighted by Iwaisako (2003) who found that older households usually own their home and have nearly paid for it, so they are more willing to take risks and diversify into more risky financial assets. He found that equity shares in portfolios increases in line with households are, peaking in the fifties age group, then becoming constant. This peak comes in a much later stage of the life-cycle compared to U.S households as we have also found in our research.

2) The trend for financial asset holding among certain age groups of households is beneficial for the social security system in a country. As most defined contribution plan allow participants to partly manage their funds, increasing risky

asset investment from the retirement funds of older households can be perceived as worrying. But in the Malaysian system, EPF participants are allowed to invest a small portion of their retirement fund in unit trusts which may not pose threat the value of their retirement funds.

In addition to the examination of the life-cycle hypothesis, we aimed to contribute to the body of knowledge by highlighting more aspects of financial assets demand offered in other related research. This research is the first research to incorporate Islamic financial assets in the examination of the life-cycle hypothesis in addition to estimating the factors that affect the level of demand for financial assets. This research took into account the reality of the Malaysian economy that operates using the principles of Islamic finance and banking for more than 20 years since its first inception of Islamic bank in Malaysia. In this respect we examined the effect of households' preferences on the demand for conventional and Islamic financial assets as well as households' levels of *Syariah* literacy. Driven by the maturity of the operation is Islamic banking in Malaysia, our results show that *Syariah* literacy is only significant in the demand for saving accounts but not for unit trusts and shares. To capture the increasing popularity of financial planning in Malaysia, we have included financial exposure variable and a dummy variable for financial planners' participation in household demand. These two aspects are new approaches in examining the level of demand for financial assets in Malaysia. It is hoped that future research on the role of financial planners in household portfolio allocation will be conducted in relation to examining wealth accumulation by households.

9.3.2 Implications for financial institutions

As raised by Iwaisako (2003), how firms raise funds for their business (the supply structure of financial assets) is directly related to the way households allocate their funds (the demand structure of financial assets). Understanding the factors affecting the demand for financial assets should educate firms on efficient ways to raise their finances. Many service providers have their own research team or hire the services of academic researchers to enlighten them on issues such as the ones we have examined in our research. For example, research on the commercial demand for general *takaful* was conducted in the faculty of Finance and Banking, Northern University of Malaysia in 2003 by Diara Md. Jadi, Norlida Abdul Manab & Prof. Madya Dr. Yusnidah Ibrahim. [69] Professor Muhammad Bin Muda[70], with the collaboration with PNB has also examined the penetration levels of Amanah Saham Bumiputra and Amanah Saham Nasional by PNB unit trust investments among Malays, the native people of Malaysia in early 1990s. In his research, he found that Malays' participation in ASB and ASN, the earliest unit trusts scheme offered by PNB were at their peak at the time of the research. From the report, PNB moved forward to offer units such as Amanah Saham Wawasan 2020 (Vision 2020 unit trusts) and Amanah Saham Didik (Education unit trusts) that are now on sale for all Malaysians, regardless of their race.

In addition to research performed in collaboration with the service providers as we have discussed, there is other academic research that can benefit financial institutions. Some examples are on the patronage for selections of Islamic banks by Erol and Elbdour (1989), Sudin, Ahmad and Planisek (1994) and on the estimation of demand for Islamic financial services in the UK by Dar (2004). In contrast to these researchers, we concentrate on factors that affect the demand for financial services while focusing on the life-cycle.

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[69] http://fwb.uum.edu.my/index.php?option=com_content&task=view&id=109&Itemid=2. Retrieved on 8th January 2007

[70] Information obtained from the discussion with the researcher, which also the Dean to the Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia.

In addition to contributing to the literature as well as disseminating knowledge to the service providers, our research also contribute to the finance literature in general by examining the demand for financial assets according to the life-cycle hypothesis taking into account Islamic financial assets. It is time for research teams close to conventional finance such as the life-cycle hypothesis area to extend their research into the domain of Islamic compliant financial assets to reflect more of the reality of investment in Islamic countries such as Malaysia and other Middle Eastern countries.

In the pursuit of the implications of our findings, we will consider their effect on policy makers and service providers.

9.3.3 Implications for Policy Makers

This research has been designed to understand and estimate the level of demand for financial assets in Malaysia. The findings of this research are valuable not only for policy makers around the Asian region but for countries which have similar investment facilities and economic infrastructures such as the size of their capital and financial markets. Researchers who would like to understand about Malaysian financial system also can benefit from the findings of this research as how Malaysian households allocate their portfolio directly affect the system.

As our research also examine *Syariah* implications on the demand for financial assets such as *Syariah* literacy and preference for conventional and Islamic financial assets, the results from our research can be made useful to policy makers that operate in Islamic financial market. Planners who operate in an Islamic-compliant climate can use our results to understand more of the market demand for financial assets. Middle-Eastern countries economies are big and have definite potential for the further development of Islamic financial assets and so research that offers ways to understand these aspects more can be useful. If policy makers in these countries can predict the demand for Islamic financial assets by observing the factors examined in our analysis, it will help to raise finance in these countries and thus increase the profile of Islamic financial centres such as Bahrain and

Dubai. Policy makers can also look further into learning more on how to regulate the social pension services available in these countries and help to develop social security services that still have many areas to be improved.

Bank Negara Malaysia (BNM) has to further educate the Malaysian public on financial education as the findings of this research point to the fact that financial education has so far failed to direct them to allocate their wealth efficiently. Financial exposures variable was found not be significant in the process of their wealth allocation. More importantly, as pointed by the Hijrah unit trust management[71], the lack of employer training on the aspect of wealth management has resulted in a negative effect on the portfolio management of employees. This motivates Hijrah Unit Trust Management to lobby the government for more employees training scheme in workplaces in Malaysia.

As having decent resources for retirement is considered an important issue, more education is needed in order to avoid poverty among old-aged households. It is broadly agreed that more financial education is needed. Lack of education in this aspect in the west, for example, in making decisions on home equity release to provide for a stream of income for pensioners may have led some householders to lose their homes. This is especially the case if householders have lived longer than the projected period of their home equity release contract. With the release or 'lifetime' mortgages, interest does not have to be paid each month but is added to the amount outstanding. The loan must be repaid after a homeowner dies or moves into a care home. In the case of couples, it must be repaid after the death of the surviving spouse or partner. Nevertheless, the longer a person lives, the higher will be the bill.

Government also needs to look further on the threshold of funds which can be invested in unit trusts as the majority of households are not up to managing their

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[71] Hijrah Unit Trust management was the organiser of a conference on financial planning attended by the author during the course of data collection. The director is one of the certified providers of financial planning course provided by PNB. The information on its lobbying of the government had been obtained during the course of interview with the director, Hajjah Rohani Datuk Shahir.

funds on their own. If the government can provide some sort of help for households to make informed decisions by way of employer-sponsored financial advisors, households' quests for growing their retirement funds may be more successful.

We also asked financial planners on ways to promote Islamic financial planning. As Islamic financial planning is close to the heart of Malaysians, the majority of whom are Muslims, increased availability of Islamic financial planning assistance could boost Malaysians' involvement in financial planning. The financial planners' views on ways to market Islamic financial planning have to be taken seriously.

9.4 Research Limitations and Suggestions for Future Research

We have considered only the demand for the most popular assets in accordance with our initial observations, namely saving accounts, shares and unit trusts. Certainly, future research could also examine the demand for conventional bonds and *sukuk* that are now taking their place in Malaysia. The demand for these types of financial assets is worth examining due to their characteristics of providing a steady income stream without having to take high risks. The current scenario in Malaysia, however, is not encouraging as lamented by Ibrahim and Wong (2006) that the holdings for bonds and sukuk are concentrated in the hands of the fund manager of big insurance companies, unit trusts funds and employee provident funds. However, with increasing offer of *sukuk* by the government and private institutions in Malaysia, this situation may change in the near future.

As for the selection of the variables, we paid little attention to quantify the effect of returns on investment from households' ownership of the respective financial assets. From our experience with the early respondents participated in the data collection, we learnt that it is unrealistic for us to ask respondents to give detailed

information on their investments as the process is lengthy and cumbersome. We learnt that the complexity of that kind of questionnaires actually discourage respondents to answer them. We also believe that the cost of obtaining the data outweighed the benefit that the data would bring to our research. Our depth of micro-data cannot match that used by Tin (1997, 2000) and Iwaisako (2003). They used government survey data that is high in quality but very expensive to collect. In Malaysia, the kind of survey that involves households' financial data is not yet performed. Naturally this limits the number of research studies that can benefit from that kind of data.

Another concern of our research was the relatively small number of respondents who answered our questionnaires, i.e. 258 out of 500 questionnaires distributed. We were unable to increase the number of participants due to time and money restrictions. Unlike other research that have enjoyed financial assistance in the form of government grants and university funds, we have had to rely on the minimal allowance provided by the government of Malaysia for doctoral students writing their theses. The sampling of our data, however, was carefully designed to capture the dynamics of the population it intended to generalise. By doing this we have been able to minimise the adverse effect of the low numbers of respondents.

In relation to the definition of wealth used in our research, we included owner-occupied housing as one element of the variable. Such practice can be argued as less accurate as the ownership of such houses is for consumption and not for investment purposes. This will result in the householders' wealth and net wealth levels that are available for savings and investment being inflated. Future researchers in this area should take into consideration the effect of owner-occupied housing on the demand for financial assets.

Future research that examines further on the *Syariah* literacy, financial literacy and financial planning is also desirable since these aspects are a growing concern for the Malaysian public and policy makers. As a country that is actively playing the role of Islamic banking and finance hub in the region or indeed in the world, such studies are critical for further development. The growing need for financial

planning due to the increased willingness of EPF participants to invest at their own discretion also makes the call for measures to educate households all the more important.

When using the regression analysis to predict the level of demand for financial assets, we assumed that the predictor variables are all exogenous while they can be the either exogenous or endogenous variables. Future research that can distinguish among them is beneficial to further detailing the estimation of the demand for financial assets. Causality tests that can ascertain the cause of the demand for financial assets can also be researched in the future.

9.5 Conclusion

Our research has been conducted with the aim of distinguishing the factors affecting the level of demand for financial assets in Malaysia and learning about the industry of financial planning in Malaysia. Our research has successful in its use of multiple regression analysis to test the hypotheses developed. Considerable knowledge also had been learnt from the interviews with leading financial planners in Malaysia.

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Appendix 1: Survey Results by Failaka.com: Demand for Islamic Investments in America

failaka
international, inc.
P.O. Box 1203
Chicago, IL 60690-1203
Tel/Fax: (209) 391-4248
eMail: info@failaka.com
Web: www.failaka.com

May 2000

Survey Results: Demand for Islamic Investments in America

Methodology

The following survey was conducted on July 4-6, 1997 at the annual Islamic Circle of North America (ICNA) conference in Pittsburgh, PA. The survey analyzes the results of 100 respondents.

The ICNA conference is an annual gathering of 10,000 to 20,000 Muslims from all over the US and Canada to discuss various Muslim issues, get involved in social activities, buy and sell products, and promote Islamic organizations and products (i.e. Islamic financial services). The current Muslim population in the US is estimated at 6-9 million depending on the source.

Respondents were asked to complete a survey of 15 questions to the best of their knowledge. The survey was divided into three sections; name and address, demographic information, investment style and preferences. Respondents were not paid or compensated in any manner. This was probably one of the reasons for a small sample size. Another reason relates to cultural issues. Muslims, especially from South Asia, are reluctant to share personal financial information with others. The younger generation and those born in the US are more willing to share such information.

The survey was originally developed for a mailing campaign but received limited success due to the above mentioned issues. Face-to-face contact was a better approach.

Given the fact that no other study has been conducted on Islamic financial services in the US, the following study is considered to be the best available at this time.

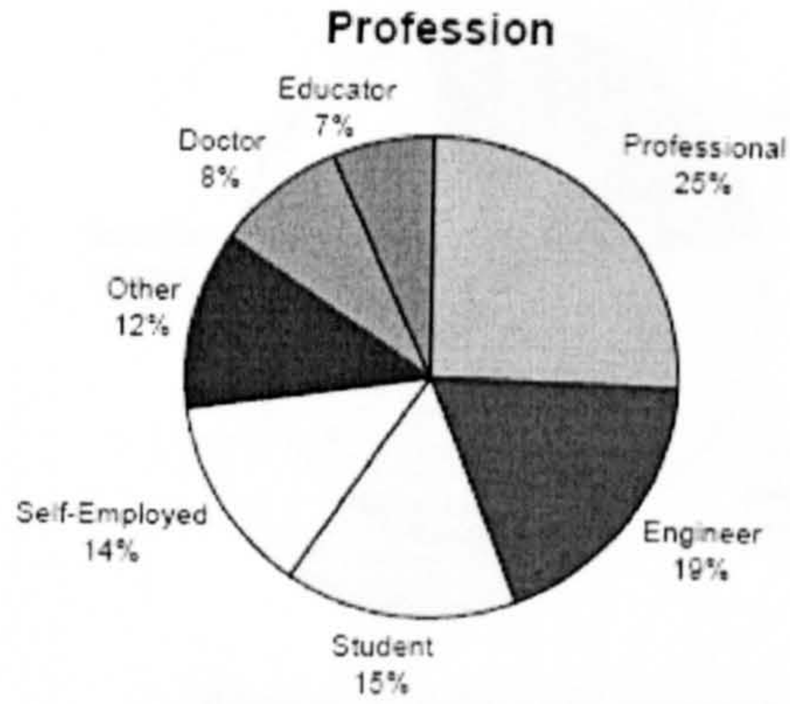
Limitations

- Small sample size. Results may not be indicative of the target audience at-large.
- Demographic breakdown of respondents shows a high percentage of students and those new in the job market (higher than the demographic breakdown compiled by the American Muslim Council, Washington, DC)
- Some respondents who have limited knowledge of financial services and investments were hesitant about answering questions relating to their financial knowledge and, thus, left some questions unanswered. As such, results of some questions may be based on less than 100 respondents.

Demographic Analysis

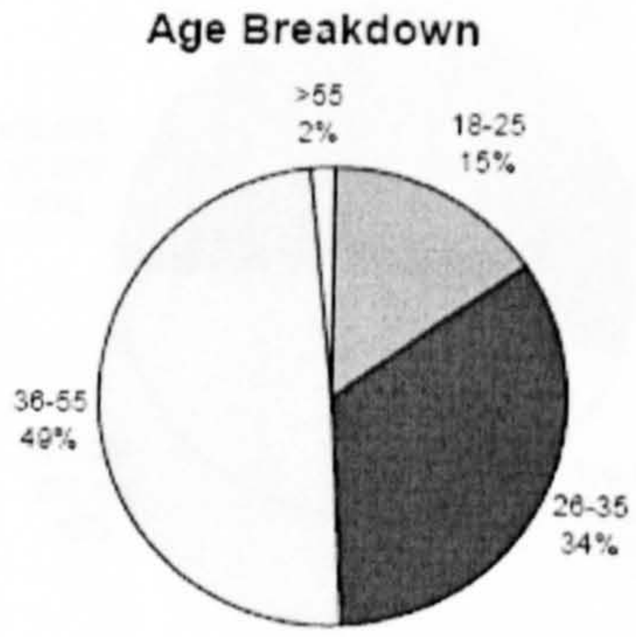
Profession:
Over 59% of respondents came from professional backgrounds. Educator category includes university level professors as well as K-12 educators. There was a high level of students in the sample size.

The 'other' category includes clerical, blue-collar as well as homemaker professions.



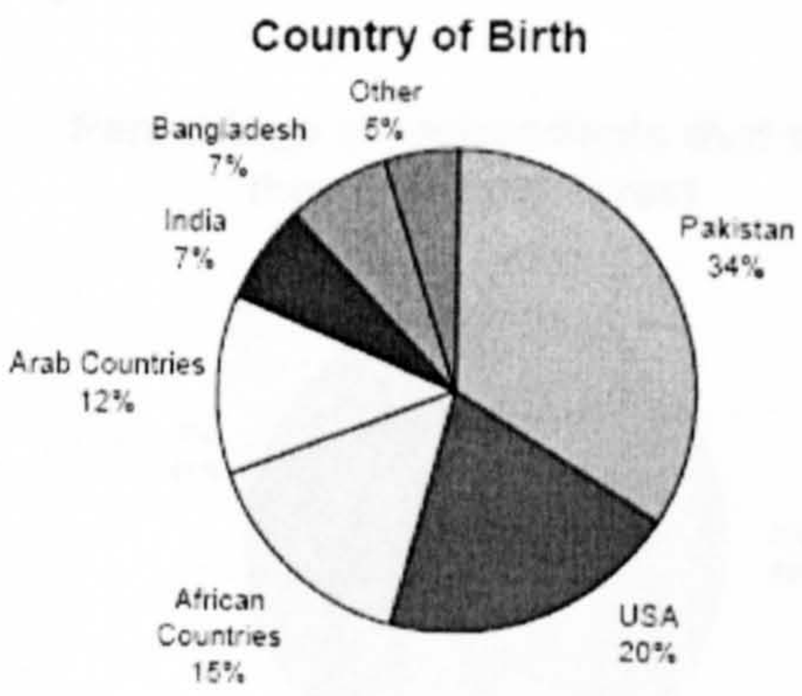
Age Breakdown:
The largest age group was the 36-55 category which is a prime investment age group. The >55 age group was underrepresented which was most likely due to the cultural issues mentioned in Methodology.

Note that the 18-25 category is representative of the Student profession above (15%).



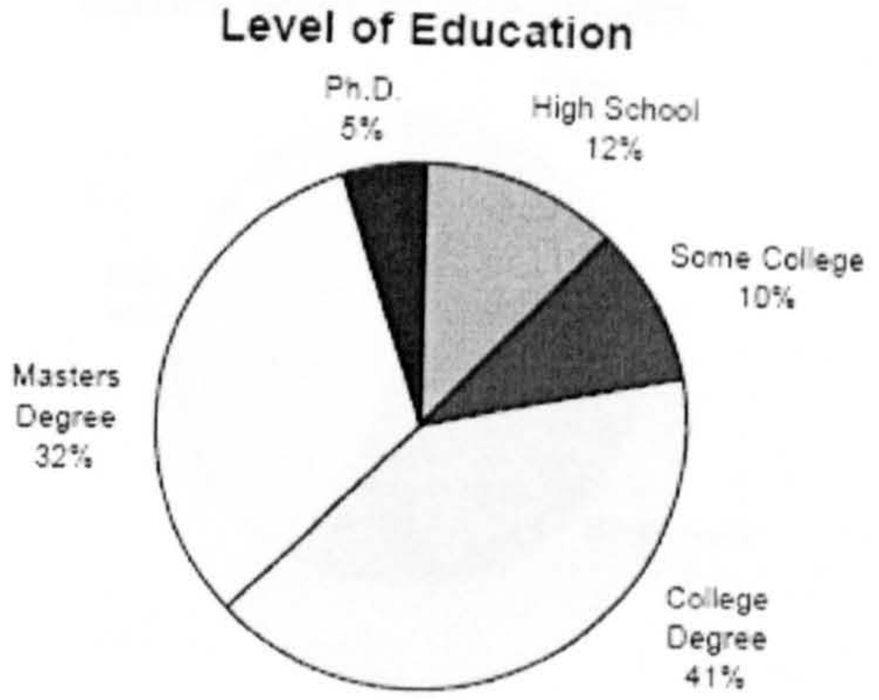
Country of Birth:
The South Asian made up the largest group with over 48% of the sample size, respondents born in Pakistan made up 34%.

As the Muslim population continues to expand in the US, through natural growth or migration, the number of Muslims born in the US will increase. A majority of the US born respondents were second generation Muslims from South Asia and the Middle East.



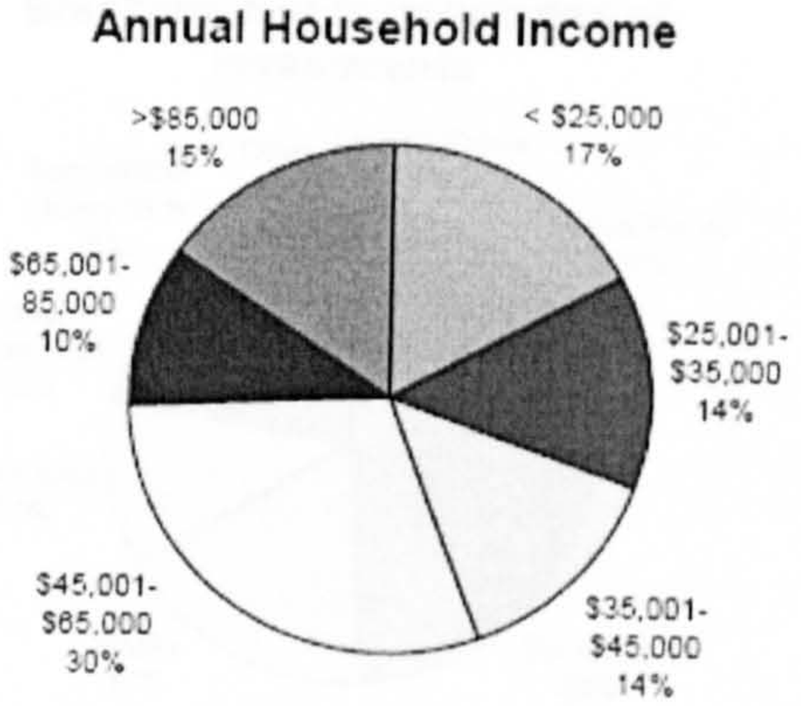
Level of Education:
The level of education in the sample size was impressive. Over 77% have university degrees, of which over 37% have post-graduate degrees.

Note, however, that students currently enrolled in college are spread across three categories; high school, some college, and college degree. A large portion of the students in the sample are post-graduate students.



Household Income:
Over 17% of respondents' income was less than $25,000 annually, which is reflective of the 15% student ratio.

Over 55% of respondents have annual incomes of over $45,000.



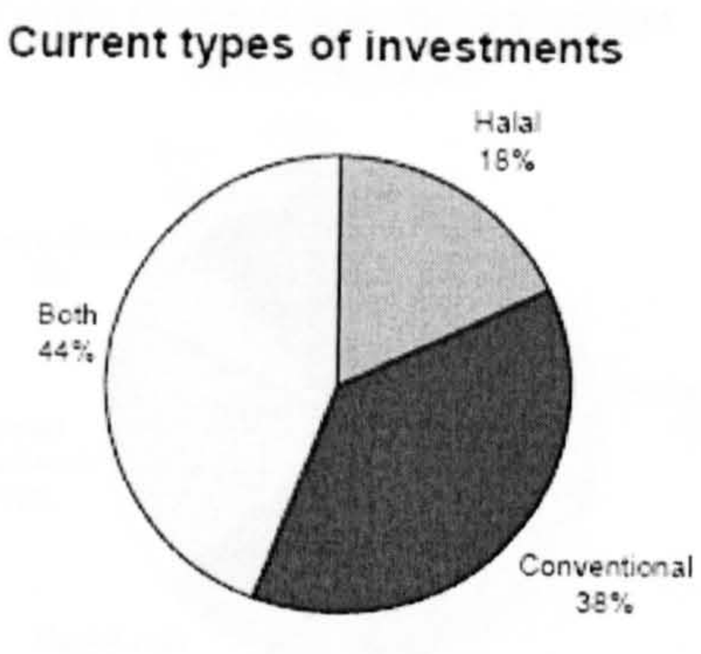
Investment Style and Preference Analysis

Level of Investment:
There was an unexpectedly low percentage of respondents who said they currently invest.

The definition of investment was: ownership of stocks, bonds, money markets, real estate, ownership in a private company and retirement accounts (IRA/401K). Ownership of a primary residence was not included.

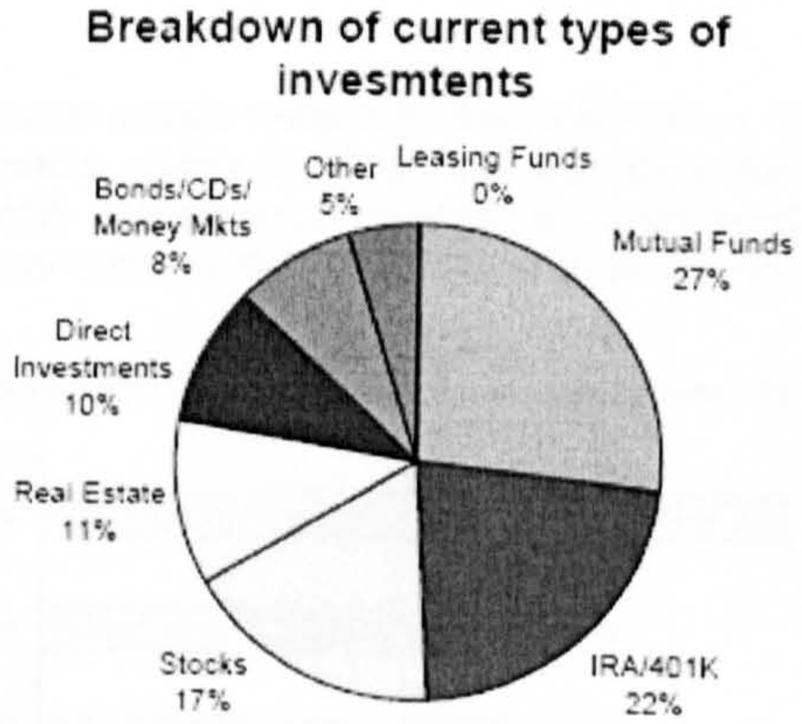
Current types of investments:
Respondents who invest were asked whether their investments were Halal (Sharia compliant), conventional or had a combination of both.

Over 62% said that they have Halal only investments or both which indicates that about two-thirds of Muslims are concerned with having investments that are in line with their religious beliefs.

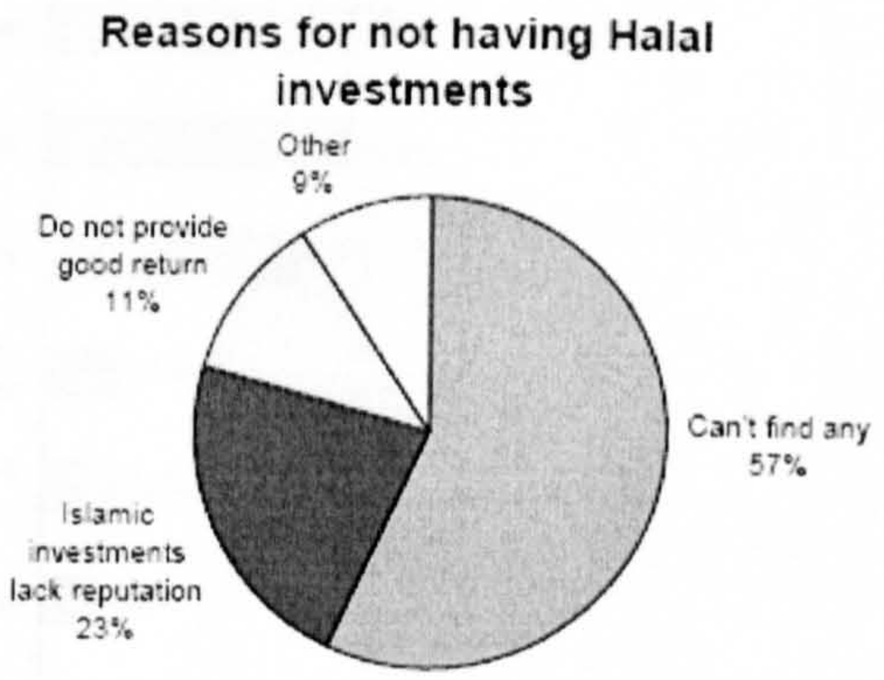


Breakdown of investments:
Only 27% of respondents said that they have mutual funds and only 8% said that they have bonds, CDs, or money markets. This may suggest that they are trying to avoid investments that are clearly based on *riba* (interest).

Direct investment includes investment in private/family business.



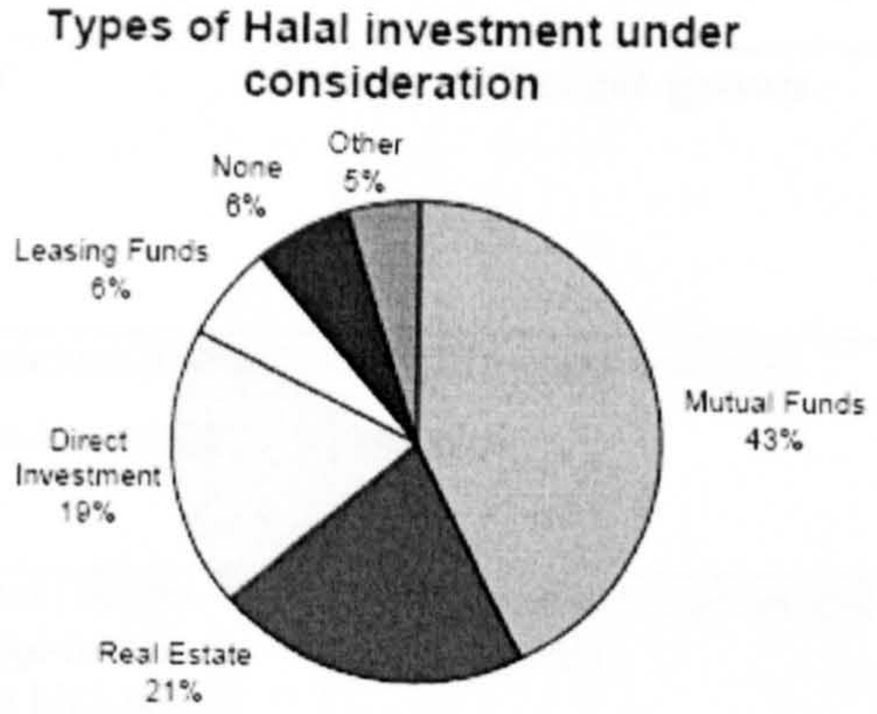
Reasons for not having Halal investments:
As expected, over 57% percent of respondents said that they do not have Halal investments because they can't find any. Surprisingly, 23% said that they do not seek out Halal investments because Islamic investments and their associated companies lack a good reputation.



Types of Halal investments respondents would like to have or would consider if available:

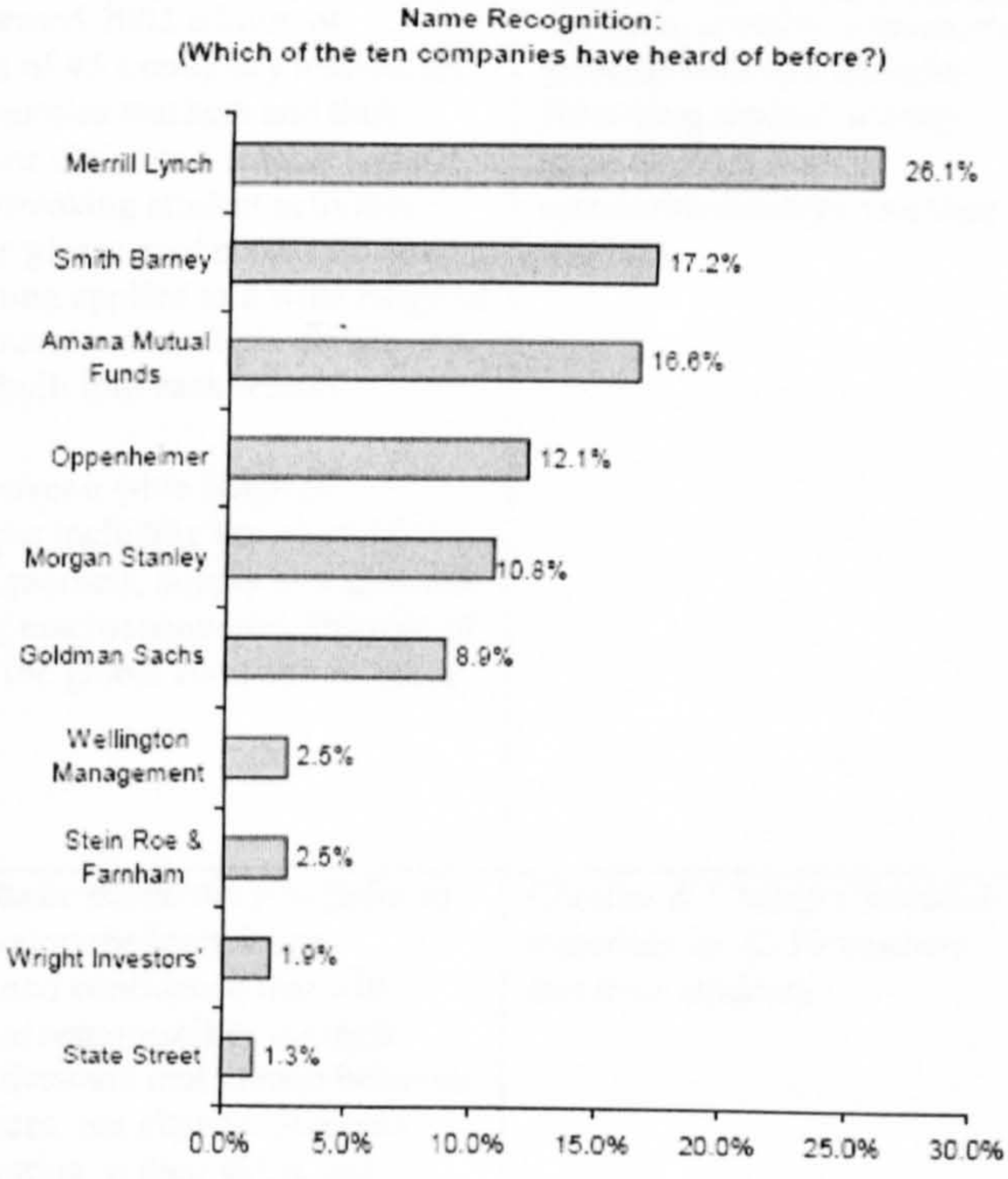
A majority of respondents (43%) said that they would like to have mutual funds available to them, this includes IRAs and pension plans.

Over 21% said that they are interested in real estate, but this also means that they would like Sharia compliant mortgages rather than real estate investment vehicles.



Name recognition:

Respondents were asked to identify financial service companies from a list of ten. The results not only highlight brand recognition among Muslims, but also show the level of knowledge of financial services in general. As suggested in previous survey results, Muslims tend to be less educated on financial services than the population in the US at-large. This could be the result of religious beliefs where one would rather not invest in fear of violating religious guidelines or because of cultural differences. In most Muslim countries family plays are large role not only in the social structure but also in the economic structure. Family members tend to rely on others for financial well-being and welfare. The working generations support the younger and the older generations. However, as wealth increase and the new generation joins the labor force, more and more attention is being paid to long-term financial planning. Muslim will undoubtedly seek Islamic financial services.



Appendix 2: Financial Education Programme in School, Colleges and Universities in the U.S.

Title of the programme/ resources	Objectives	Target group	Medium of presentation
1) All NCEE Publications	Providing wide range of publications (more than 80 titles) for economics and personal finance	K-12 teachers and their students	On the website: store.ncee.net
2) Advanced Placement Economics	*Advanced Placement Economics* (aka the Morton Books) teaches a college-level economics course that prepares high school students for the AP Economics Exam. The Teacher Resource Manual introduces the key concepts, and the Student Activities booklets -- Microeconomics and Macroeconomics -- reinforce the principles with activity-based lessons.	AP Economics teachers and their students.	The books can be purchased on: http://store.ncee.net/apeconomics.html
3) Capstone	The recently released 2003 edition of Capstone is a set of 45 exemplary lessons for high school economics teachers and their students. Capstone contains a teacher's guide and a thought-provoking student activities book; a complete glossary of economic terms; economic reasoning applied to a wide range of problems and issues; and multiple choice and essay questions built into each lesson. The 45 lessons cover a wide range of economic concepts including the economic way of thinking, markets, supply and demand, personal finance, macroeconomics, the role of government and the global economy to name a few.	Capstone contains a teacher's guide as well as a thought-provoking student activity book for high school economics teachers and their students.	The print materials can be purchased from the NCEE Store. The companion web site with detailed information on all of the materials is located at: http://capstone.ncee.net.
4) Choices & Changes	This series uses basic economic principles to help students develop the knowledge, reasoning skills, and confidence that will allow them to take responsibility for their futures and to understand that human behavior is a result of choices, not chance. Students learn that by investing in their skills and knowledge and by learning to make sound decisions, they can gain control over and improve opportunities in their own lives.	Choices & Changes includes materials for K-10 teachers and their students.	The print materials can be purchased from :store.ncee.net

5) EconEdLink	EconEdLink provides a premier souce of classroom-tested, Internet-based economic lesson materials for K-12 teachers and their students. With over 467 lessons to choose from, teachers can use as many of the lessons as they would like and as often as they would like.	The Internet-based lessons are targeted for K-12 teachers and their students. Each of the lessons includes a teacher's version as well as a student's version. Each of the lessons is designed to be delivered in a variety of formats and classroom settings.	All of the lessons are Internet-based and free to everyone. Each lesson contains a teacher's version as well as a student's version which can be used in a variety of ways. To view the list of over two hundred and fifty lessons, visit EconEdLink.org.
6)ECONnections	ECONnections contains standards-based lesson plans adapted from NCEE printed materials for the Internet with interactive activities for students. The most exciting and innovative aspect of ECONnections is its use of "volunteer experts" from The McGraw-Hill Companies.	ECONnections is designed for both teachers and students. Each lesson contains a teacher's version as well as a student's version.	All of the lessons are Internet-based and free to everyone at: www.e-connections.org.
7) Economics Challenge	The NCEE/Goldman Sachs National Economics Challenge is a state, regional and national competition for high school students designed to increase their understanding of and interest in economics and finance. Students compete in teams for a chance to win prizes and a trip to New York City to compete in the national finals	High school students from around the US have the opportunity to compete in state, regional, and national level competitions.	Information is available on: http://economicschallenge.ncee.net/ or by contacting John Morton at jmorton@ncee.net.
8) Excellence in Economic Education	Congress first authorized the Excellence in Economic Education (EEE) Act (20 USC 7267) as a part of the landmark No Child Left Behind Act, and appropriated $1.5 million for EEE in the Fiscal Year 2004. The EEE "program promotes economic and financial literacy among all students in kindergarten through grade 12 through the award of one grant to a national non-profit education organization that has as its primary purpose the improvement of student understanding of personal finance and economics." This organization in turn must allocate three quarters of EEE funding to State and local education organizations to carry out the purposes of the program.	The research grants are available for researchers wanting to pursue research in related areas.	Information on how to apply and its conditions can be viewed on: http://www.ncee.net/ea/program.php?pid=23

9) It All Adds Up	It All Adds Up is a web site for teens who want to get a head start on their financial futures. The web site contains online games and simulations to help students learn about credit management, buying a car, paying for college, budgeting, saving, and investing.	It All Adds Up is targeted at high school age students.	All of the activities are Internet-based and free to everyone. Visit ItAllAddsUp.org to start using it today
10) Financial Fitness for Life	Helps students apply economics and decision-making skills to the real world of earning and spending an income, savings, using credit, investing, and managing money. This comprehensive K-12 program consists of teacher resource manuals, student workbooks, parent guides, interactive activities, and a CD-ROM.	Financial Fitness for Life contains K-12 student activities, teacher guides, parent guides, a CD-ROM as well as a companion web site.	The print materials and CD-ROM can be purchased from the NCEE Store. The companion web site with detailed information on all of the materials is located at: http://fffl.ncee.net.
11) Learning, Earning and Investing	Learning, Earning and Investing is a multi-faceted, comprehensive investor education program for students in grades four through 12. The 16-lesson middle school print book and the 23-lesson high school print book is designed to teach the benefits of and strategies for long-term investing success. In addition, the companion Web site offers a wide array of current data, investment education links, downloadable classroom visuals, interactive lessons and classroom-tested print lessons for students.	Learning, Earning and Investing contains a 16-lesson middle school print book and the 23-lesson high school print book.	The print materials can be purchased from the NCEE Store. The companion web site with detailed information on all of the materials is located at: http://lei.ncee.net.
12)Mathematics & Economics	Created to help mathematics teachers answer the proverbial question "Why do I have to learn this?" Mathematics & Economics is a set of lecture material, classroom activities, and Web resources designed to help students discover how mathematical processes and concepts can be used in real world situations. The materials include one book for grades 6-8 and one book for grades 9-12.	The Mathematics & Economics materials include a grades 6-8 book targeted at mathematics teachers in the 6-8th grades, and a grades 9-12 book targeted at mathematics teachers in the 9-12th grades. Elementary Teachers Now Have Fun and Easy Way to Integrate Mathematics and Economics into Curriculum.	The print materials can be purchased from the NCEE Store. The companion web site with detailed information on all of the materials along with additional resources is located at: http://mathandecon.ncee.net.
13) Nasdaq Teaching Awards	The NASDAQ National Teaching Awards are designed to advance economic literacy in our nation's schools by recognizing middle school and high school teachers who are helping students to think, make sound, informed decisions, and function well in the economy.	Awards are given teachers teaching financial education	2005 Regional Winners and Semi-Finalists are available on: http://www.ncee.net/ea/program.php?pid=6

14) National Standards	The National Council on Economic Education (in partnership with the National Association of Economic Educators and the Foundation for Teaching Economics) has produced a set of curriculum standards based on the essential principles of economics, titled Voluntary National Content Standards in Economics. Each of the 20 content standards, developed by a panel of economists and economic educators, includes a rationale for its inclusion; benchmarks indicating attainment levels for students in grades 4, 8, and 12; samples of what students can do to enhance or demonstrate their understanding of economics; and correlation of existing EconomicsAmerica publications to the standards.	The essential propositions of economics are identified in the 20 content standards that follow. Each standard is followed by a rationale for its inclusion. The benchmarks for the teaching of each of the content standards are provided indicating recommended levels of attainment for students in grades 4, 8, and 12. Finally samples of what students can do to enhance or demonstrate their understanding of the benchmarks are provided.	Can be viewed on: http://www.ncee.net/ea/standards/. Standards can be viewed, downloaded or purchased from: http://store.ncee.net/volnatconsta.html. This 108 page publication contains detailed information on the 20 Content Standards
15) Preservice Syllabus	Principles of Economics for Prospective Teachers SyllabusThis publication is intended for use by college and university faculty members involved in the preparation of future teachers. It discusses the role of economic education coursework in teacher-training programs and provides model syllabi for a two-course sequence of instruction in macro- and microeconomics for prospective elementary and high school teachers. The model syllabi might be used by faculty members in economics and education to develop new economics courses for prospective teachers or to strengthen existing courses.	This publication is intended for use by college and university faculty members involved in the preparation of future teachers.	An online syllabus that can be downloaded and used as you prepare teachers for economic education. http://www.ncee.net/syllabus/
16) The Mint	The Northwestern Mutual Foundation, the charitable arm of Northwestern Mutual, partnered with the National Council on Economic Education (NCEE) in the redesign of TheMint.org, to emphasize personal financial literacy. First developed in 1997, the Web site now provides more tools to help parents as well as educators teach children about sound money management and establish good money habits at home.	The Mint is designed for middle school and high school students, teachers, and parents.	All of the materials are Internet-based and free to everyone. To begin using The Mint, visit http://www.themint.org

17) Thinking Economics	Thinking Economics is a comprehensive standards-based economics curriculum for high school teachers. It features 75 technology-based lessons for students, plus planning tools and testing materials for teachers. Teachers use the print resources to plan in-class activities and simulations that reinforce the principles and challenge their students with advanced applications of "real-world" economics. Teachers without access to a full lab may use an LCD projector for full class instruction.	High school teachers and their students. Can be used as a mainstream economics curriculum in the social studies department, or as the economics component within business, entrepreneurship and marketing classes. TE is recommended for alternative education programs, technology oriented public and private schools, and even distance education.	For more information visit http://www.thinkingeconomics.com/the or http://store.ncee.net/thinkingeconomics.html to purchase online.
18)Virtual Economics®	The Virtual Economics®: Version 3.0 CD-ROM provides a complete Resource Library of lessons and instructional materials for understanding and teaching basic concepts in economics.	Virtual Economics®: Version 3.0 is designed to be used by K-12 teachers as a refresher in basic economic concepts as well as a comprehensive library of economic lessons.	The CD-ROM can be purchased from the http://store.ncee.net/virtualeconomics.html. The companion web site with more information on the CD-ROM is located at: http://ve.ncee.net.

Appendix 3: The Lists of Current Islamic Equity Providers as at 13th February 2006 by Failaka.com conducted by Harvard University's Islamic Financial Information Program (HIFIP), Harvard University.

Abrar Investment Fund Abrar Unit Trust Managers Malaysia
Alfanar Investment Holdings AIH Investment Management Company Ltd. UK
Al-Rajhi Egyptian Equity Fund Al Rajhi Banking & Investment Saudi Arabia
Al-Rajhi Euorpean Equity Fund Al Rajhi Banking & Investment Saudi Arabia
Al-Rajhi GCC Equity Fund Al Rajhi Banking & Investment Saudi Arabia
Al-Rajhi Global Equity Fund Al Rajhi Banking & Investment Saudi Arabia
Al-Rajhi Local Shares Fund Al Rajhi Banking & Investment Saudi Arabia
Children Fund Al Rajhi Banking & Investment Saudi Arabia
Global Small Cap Equity Fund Al Rajhi Banking & Investment Saudi Arabia
Ladies Fund Al Rajhi Banking & Investment Saudi Arabia
TAIB Crescent Global Fund Albert Asset Management Bahrain
Dow Jones Islamic Index (US) Fund * Allied Asset Advisors Funds USA
Children's Investment Fund Al-Tawfeek Company for Investment Funds Saudi Arabia
Alfanar US Capital Value Apex Capital LLC UK
Al-Mubarakah Portfolio Arab National Bank Saudi Arabia
Al-Naqaa Al Mubarak Fund Arab National Bank Saudi Arabia
Crescent Fund Arab National Bank Saudi Arabia
Tabung Ittikal Arab-Malaysian Arab-Malaysian Unit Trusts Bhd Malaysia
Tabung Amanah Bakti Asia Unit Trust Berhad Malaysia
Dana Al-Aiman ASM Mara Unit Trust Management Malaysia
Azzad Income Fund * Azzad Asset Management USA
Al-Seef Fund Bank Al-Bilad Saudi Arabia
Asayel Fund Bank Al-Bilad Saudi Arabia
Al Khair Equities Fund Bank Aljazira Saudi Arabia
Al Mashareq Japanese Equities Bank Aljazira Saudi Arabia
Al Taiyebat Saudi Equities Bank Aljazira Saudi Arabia
Al Thoraiya Equities Bank Aljazira Saudi Arabia
Al-Khair Global Equity Fund Bank Aljazira Saudi Arabia
Al-Nukhba Asian Equity Bank Aljazira Saudi Arabia
Al Badr Fund Saudi Riyal Bank Alsaudi Alfransi Saudi Arabia
Al Badr US Dollar Bank Alsaudi Alfransi Saudi Arabia
Al Naqaa Asia Growth Fund Bank Alsaudi Alfransi Saudi Arabia
Al Noor Equity Trading Fund Bank Alsaudi Alfransi Saudi Arabia
Al Qindeel high yield Murabaha Bank Alsaudi Alfransi Saudi Arabia
Al-Saffa Saudi Equity Trading Bank Alsaudi Alfransi Saudi Arabia
BBMB Dana Putra BBMB Unit Trust Management Malaysia
BHLB Pacific Dana Al-Mizan (Balanced) BHLB Pacific Trust Malaysia
BHLB Dana Al-Ihsan BHLB Pacific Trust Malaysia
Amanah Saham Bank Islam BIMB Unit Trust Mgmt Bhd. Malaysia
Dow Jones Islamic Index Fund Brown Brothers Harriman & Co. USA
Parsoli Global Equity Capel Cure Sharp. Ltd. UK
Al-Sukoor European Equity CICM Fund Management Ltd. Germany
Citi Global Portfolios Citi Asset Management Group Bahrain
Mendaki Capital Protected Fund DBS Asset Management Singapore
Mendaki Global Fund DBS Asset Management Singapore
Mendaki Growth Fund DBS Asset Management Singapore
SAMI Fund Dynamic Mutual Funds Ltd. Canada
Alfanar Global Healthcare Essex Investment Management LLC UK
Alfanar Technology Essex Investment Management LLC UK
First Arabian Equity 2000 First Investment Funds E.C. Kuwait
Alfanar US Capital Growth Forstmann-Leff Associates LLC UK

FutureGrowth AlBaraka Equity Fraters Asset Management South Africa
QIB Global Equities Global Asset Management (GAM) Qatar
Al-Durra Islamic Fund Global Investment House Kuwait
Global Islamic Fund Global Investment House Kuwait
Amanah Saham Wanita Hijrah Unit Trust Management Bhd Malaysia
HLB Dana Makmur Fund HLB Unit Trust Management Bhd Malaysia
Amanah European Basket Protected HSBC Amanah Finance UAE
Amanah Global Titans Protected HSBC Amanah Finance UAE
HSBC Amanah Aqar Income Fund (Coming Soon) HSBC Amanah Finance UAE
HSBC Amanah Best-Manager Fund (Coming Soon) HSBC Amanah Finance UAE
Source: Failaka International (www.failaka.com).
Equity Fund Name Fund Manager Location
HSBC Amanah Blue Chip Protected Fund HSBC Amanah Finance UAE
HSBC Amanah Euro Basket Protected Fund HSBC Amanah Finance UAE
HSBC Amanah Global Index Fund HSBC Amanah Finance UAE
HSBC Amanah Global Properties Income Fund HSBC Amanah Finance UAE
HSBC Amanah Healthcare Protected Fund HSBC Amanah Finance UAE
HSBC Amanah Pan-European Protected Fund HSBC Amanah Finance UAE
HSBC Life Amanah Pension Fund HSBC Amanah Finance UAE
HSBCAmanah Saudi Equity Fund HSBC Amanah Finance UAE
HSBC Amanah Global Equity HSBC Investment Funds (Lux.) SA UAE
IBB Global Equity Fund Islamic Bank of Brunei Brunei
Kuala Lumpur Ittikal Fund Kuala Lumpur Mutual Funds Malaysia
Mayban Dana Yakin Mayban Management Bhd. Malaysia
Al Baraka Global Equity Merril Lynch Mercury Asset Mgmt Bahrain
Arzaq Investment Fund Multi-Manager Kuwait
Al-Watania Fund National Bank of Bahrain Bahrain
AlAhli Asia Pacific Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
AlAhli Europe Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
AlAhli GCC Trading Equity Fund National Commercial Bank (AlAhli) Saudi Arabia
AlAhli Global Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
AlAhli Healthcare Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
AlAhli Saudi Dynamic Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
AlAhli Saudi Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
AlAhli Small Cap Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
AlAhli US Trading Equity National Commercial Bank (AlAhli) Saudi Arabia
Navis Asia III (CIMB-Muamalat Fund) Navis Investment Partners/ Navis-CIMB Malaysia
Oasis Crescent Fund (S. Africa) Oasis Asset Management Ltd. South Africa
Oasis Crescent Global Equity Oasis Global Management Co. Ireland
Pacific Dana Amana Pacific Mutual Fund Trust Malaysia
Al-Dar World Equities Pictet & Cie Switzerland
TII Small Cap Equity (European) Pictet Asset Management Ltd. UK
Amanah Saham Darul Iman PTB Amanah Saham Darul Iman Malaysia
Al Nama'e International Stock Portfolio Qatar Islamic Bank Qatar
RHB Mudarabah Fund RHB Unit Trust Management Malaysia
Al Hadi Islamic Portfolio Riyad Bank Saudi Arabia
Al Mokdam Islamic Portfolio Riyad Bank Saudi Arabia
Al Shamekh Islamic Portfolio Riyad Bank Saudi Arabia
Al Shuja'a Islamic Portfolio Riyad Bank Saudi Arabia
Global Equity Fund Riyad Bank Saudi Arabia
Islamic Balanced Income Fund Riyad Bank Saudi Arabia
Riyad Equity Fund 2 (Saudi) Riyad Bank Saudi Arabia
Al-Safwa International Equity Roll & Ross Asset Management Saudi Arabia
Miraj Global Equity Royal Bank of Canada Canada
Al Raed Fund SAMBA Saudi Arabia
Global Equity Trad. (Al Manal) SAMBA Saudi Arabia

Intl Equity & ITF (Al Wasat) SAMBA Saudi Arabia
Amana Growth * Saturna Capital USA
Amana Income * Saturna Capital USA
Amanah Balanced Portfolio Saudi British Bank Saudi Arabia
Amanah Defensive Portfolio Saudi British Bank Saudi Arabia
Amanah Global Equity Index Fund Saudi British Bank Saudi Arabia
Amanah Growth Portfolio Saudi British Bank Saudi Arabia
Amanah Saudi Equity Fund Saudi British Bank Saudi Arabia
Amanah Saudi Industrial Fund Saudi British Bank Saudi Arabia
YOSR Aman Portfolio Saudi Hollandi Bank Saudi Arabia
YOSR Mizan Portfolio Saudi Hollandi Bank Saudi Arabia
YOSR Tamoh Portfolio Saudi Hollandi Bank Saudi Arabia
Gulf Companies Fund Saudi Investment Bank Saudi Arabia
Gulf Industrial Companies Fund Saudi Investment Bank Saudi Arabia
Saudi Companies Fund Saudi Investment Bank Saudi Arabia
SUT Ethical Growth Fund Singapore Unit Trust Ltd. Singapore
SUT Ethical Value Fund Singapore Unit Trust Ltd. Singapore
Source: Failaka International (www.failaka.com).
Equity Fund Name Fund Manager Location
TAIB Islamic Currency Fund Taib Bank E.C. Bahrain
TAIB Islamic GCC Equities Index Fund Taib Bank E.C. Bahrain
TAIB Islamic UK Equities Index Fund Taib Bank E.C. Bahrain
Alfanar Europe TT International Investment Management UK
Ibn Majid Emerging Markets UBS Brinson Switzerland
Noriba Global Equity UBS Islamic Fund Management Co. Bahrain
Al-Bukhari Global Equity Wafra Investment Advisory Group USA
Barclays Global Equity Wellington Management Co. LLP USA
Caravan Fund Wellington Management Co. LLP USA
Hegira Global Equity Wellington Management Co. LLP USA
Alfanar US Large Cap WP Stewart Asset Management UK
Azzad DJIM Index Fund * Wright Investors' Service USA
Balanced & Hybrid Funds Fund Manager
Al-Rajhi Balanced Fund 1 Al Rajhi Banking & Investment Saudi Arabia
Al-Rajhi Balanced Fund 2 Al Rajhi Banking & Investment Saudi Arabia
Al Hilal Fund (Balanced) Merril Lynch Mercury Asset Mgmt UAE
AlManarah Conservative Growth Portfolio National Commercial Bank (AlAhli) Saudi Arabia
AlManarah High Growth Portfolio National Commercial Bank (AlAhli) Saudi Arabia
AlManarah Medium Growth Portfolio National Commercial Bank (AlAhli) Saudi Arabia
Islamic Bond (Sukuk) Funds Fund Manager
Amlak Amlak Finance UAE
USD 600Mn Malaysia Global Sukuk HSBC Amanah Finance Malaysia
USD 700Mn Qatar Global Sukuk HSBC Amanah Finance Qatar
Kuala Lumpur Islamic Bond Fund Kuala Lumpur Mutual Funds Malaysia
Dahlia Syariah Income Fund Mayban Life Assurance Bhd. Malaysia
RHB Islamic Bond Fund RHB Unit Trust Management Malaysia
Takaful Funds Fund Manager
Takaful Global Fund HSBC Singapore Singapore
Takaful Sinaran Fund HSBC Singapore Singapore
Leasing Funds Fund Manager
GCC Leasing Fund Al-Tawfeek Company for Investment Funds Saudi Arabia
GCC Leasing Fund II Al-Tawfeek Company for Investment Funds Saudi Arabia
International Leasing Fund Al-Tawfeek Company for Investment Funds Saudi Arabia
AlAhli Auto Finance Fund "A" National Commercial Bank (AlAhli) Saudi Arabia
AlAhli Auto Finance Fund "B" National Commercial Bank (AlAhli) Saudi Arabia
Real Estate Funds Fund Manager
AlBait UK Real Estate Fund ABC Islamic Asset Management UK

Amlak First Real Estate Fund Amlak Finance UAE
Global Us Real Estate Fund Global Investment House Kuwait
Al-Deara Real Estate Finance Fund Kuwait Finance House Kuwait
Al-Soor Real Estate Leasing Fund Kuwait Finance House Kuwait
First Industrial Fund Kuwait Finance House Kuwait
AlAhli Real Estate Income Fund National Commercial Bank (AlAhli) Saudi Arabia
Badr Property Fund Qatar Islamic Bank Qatar

NOTE:

- This list does not include currency funds or trading funds.
- The locations listed are not necessarily where the funds are domiciled, they are the location of the fund manager.

* Funds registered with the SEC, which may be bought and sold by US residents.

Source: Failaka International (www.failaka.com).

Appendix 4: The Questionnaire for Households on the Demand for Financial Assets

"HOUSEHOLDS' PORTFOLIO ALLOCATION AND DEMAND FOR FINANCIAL ASSETS: A MICRODATA TEST OF MALAYSIAN EXPERIENCE TO THE LIFECYLE HYPOTHESIS"

NOTE TO ALL THE INTERVIEW PARTICIPANTS:

This interview is conducted to learn about personal finances of Malaysian households. By agreeing to be a participant of this questionnaire interview, you will be asked on questions covering areas such as income, wealth and amount of financial obligations. You will also be asked about your holdings of various types of financial assets. Please be assured that your answers will be kept confidential, with no names and identification will be asked thus recorded. The findings of the research will only be used for academic purpose as part of the requirements of my doctorate study in Islamic Finance in the University of Durham, United Kingdom.

Please tick in the appropriate boxes.

1. Age
   - ☐ Less than 30
   - ☐ 30-50
   - ☐ More than 50

2. Gender
   - ☐ Male
   - ☐ Female

3. Marital status
   - ☐ Single
   - ☐ Married
   - ☐ Divorced
   - ☐ Others

4. Number of children
   - ☐ None
   - ☐ 1-2
   - ☐ 3-4
   - ☐ 5-6
   - ☐ More than 6

5. Highest academic qualification
   - ☐ Secondary school
   - ☐ Diploma
   - ☐ Degree
   - ☐ Master's degree
   - ☐ Doctorate's degree

6. Job sector
   - ☐ Self employed
   - ☐ Private
   - ☐ Government
   - ☐ Currently Unemployed

7. Race
   - ☐ Malay
   - ☐ Non-Malay

8. Please state your monthly salary: _____

9. Please fill in the amount from sources of income as below (annual)

☐	Rental income	: RM_____
☐	Business income	: RM_____
☐	Annuity	: RM_____
☐	Gratuity	: RM_____
☐	Royalty	: RM_____
☐	Others (e.g. bonus)	: RM_____

10. Please fill in the amount from sources of income as below (annual)

☐	Divided from shares/unit trusts	: RM_____
☐	Interest /income from bonds	: RM_____
☐	Interest /profit from savings	: RM_____

11. Estimated value of your house/s	: _____
12. Balance of mortgage on the house/s	: _____
13. Value of other real properties	: _____
14. Balance of mortgage on the properties	: _____
15. Market value of motor vehicle/s	: _____
16. Hire purchase balance on the motor vehicle/s	: _____
17. Estimated value of any land holdings	: _____
18. Balance of your retirement accounts (EPF or other retirement accounts)	: _____
19. Estimated saleable of any business venture (Wholly or partly owned)	: _____
20. Amount owed for business or professional purpose	: _____
21. Amount owed for personal use	: _____
22. Outstanding credit card bills	: _____
23. Amount owed from individuals other than financial Institutions	: _____
24. Amount owed on educational loans	: _____

C. Questions below are designed to know about your financial assets holding.

25. What type of unit trusts you hold?
☐ None
☐ Conventional
☐ Islamic

26. The approximate value of unit trusts holding : _____

27. What type of savings you have?
☐ None
☐ Conventional
☐ Islamic

28. The approximate value of savings : _____

29. The approximate value of savings in other financial institutions other than bank, e.g. Tabung Haji : _____

30. What type of shares you hold?
☐ None
☐ Conventional
☐ Islamic

31. The approximate value of shares held : _____

32. What type of bonds you hold?
☐ None
☐ Conventional
☐ Islamic

33. The approximate value of bonds held : _____

34. What type of family insurance you have?
☐ None
☐ Conventional
☐ Islamic

35. Do you prefer to invest in bonds or stocks?(*investment in stocks is riskier and have prospects of obtaining higher returns*)
☐ Bonds ☐ Stocks

36. Do you ever consult the following professionals for their advice? (You may have more than one option)

- ☐ None
- ☐ Tax specialists
- ☐ Certified insurance representatives
- ☐ Certified unit trust representatives
- ☐ Accountants
- ☐ Personal lawyers

37. Do you hire the service of certified personal financial planners?

- ☐ Yes
- ☐ No

38. Why you have decided to hire a CFP?

- ☐ Confident with advice given by CFP
- ☐ CFP may recommend suitable financial products
- ☐ No expertise to do it myself
- ☐ No time

39. The types of advice that you seek

- ☐ Credit and borrowing
- ☐ Risk management (insurance or takaful)
- ☐ Investment advice
- ☐ Tax planning
- ☐ Retirement planning advice
- ☐ Estate management advice

40. Why you decided NOT to hire a CFP?

- ☐ Do not have enough funds
- ☐ Capable to manage on my own
- ☐ Not comfortable for other parties to involves in personal finances
- ☐ Not familiar with the service provided by personal financial planners

Please rank your understanding on the following issue relating to Islamic finance.

	ISSUES	Poor				Excellent
41	Prohibition of interest/ riba'	1	2	3	4	5
42	Prohibition of unlawful activities	1	2	3	4	5
43	Prohibition of uncertainty in business dealings/ gharar	1	2	3	4	5
44	Prohibition of gambling in business dealings / *maisir*	1	2	3	4	5
45	Discouragement of monopoly	1	2	3	4	5
46	Existence of agreement of parties in business transactions / *akad*	1	2	3	4	5

Please rank your knowledge on *Syariah* Advisory Councils (e.g. in central bank, banking institutions and other financial institutions offering financial products)

	ISSUES	Poor				Excellent
47	Aware of the existence of such boards	1	2	3	4	5
48	Aware on who is the key person of the board	1	2	3	4	5
49	Aware on major opinions of the board	1	2	3	4	5
50	Aware on the lists of *halal* counters announced by the board	1	2	3	4	5

Please state the frequency of your financial monitoring practice

	ISSUES	Weekly	Monthly	Once every 6 months	Yearly	Never
51	How often you save money which meant to be used in the future?	1	2	3	4	5
52	How often you monitor your income and expenditures?	1	2	3	4	5
53	How often you monitor your investments	1	2	3	4	5
54	How often you monitor your retirement accounts?	1	2	3	4	5

Please indicate the usage of the sources of financial information you usually use to make financial decisions

	ISSUES	Use Greatly				Never
55	Business magazines	1	2	3	4	5
56	Newspaper-business sections	1	2	3	4	5
57	Television programmes	1	2	3	4	5
58	Radio programmes	1	2	3	4	5
59	Representatives of financial products (e.g. shares remisiers, insurance agents).	1	2	3	4	5

END OF QUESTIONNAIRES QUESTIONS

Thank you very much for answering the questionnaires and best wishes.

APPENDIX 5: THE REGRESSION RESULTS FOR ALL FINANCIAL ASSETS

A: THE REGRESSION RESULTS FOR THE DEMAND FOR UNIT TRUSTS

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	log net wealth, non-Malay, financial literacy, prefer stocks, do not hire CFP, government, conventional unit trust, female, diploma, self employed, syariah literacy, secondary school, married, master's degree, propensity to plan, age more than 50, age less than 30	.	Enter

a All requested variables entered.
b Dependent Variable: log unit trust

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.127	17	2.125	11.374	.000
	Residual	27.091	145	.187		
	Total	63.217	162			

a Predictors: (Constant), log net wealth, non-Malay, financial literacy, prefer stocks, do not hire CFP, government, conventional unit trust, female, diploma, self employed, syariah literacy, secondary school, married, master's degree, propensity to plan, age more than 50, age less than 30
b Dependent Variable: log unit trust

Coefficients

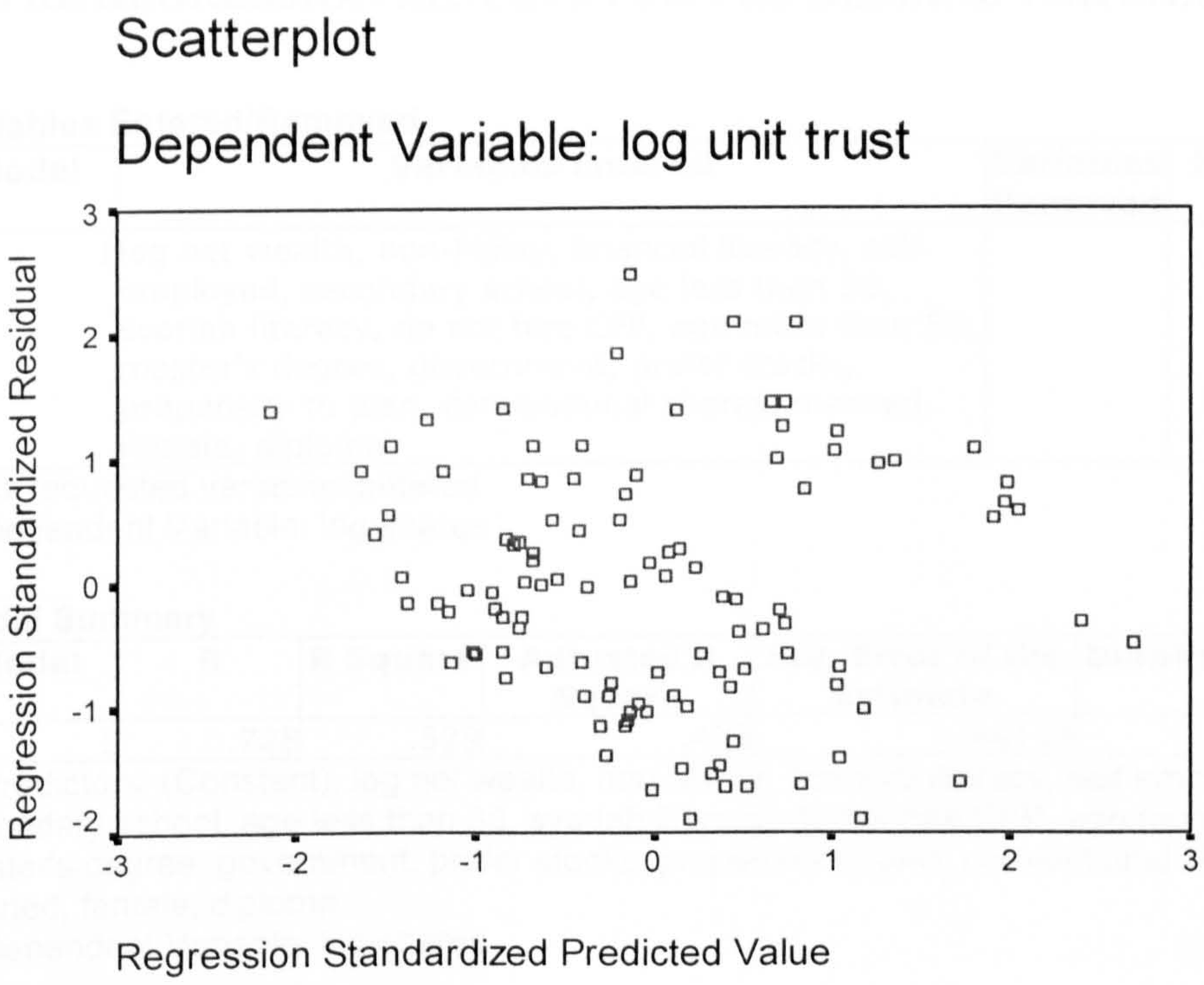
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.688	.697		-.987	.325
	age less than 30	.647	.130	.355	4.969	.000
	age more than 50	.430	.101	.292	4.255	.000
	Female	-.068	.082	-.053	-.834	.405
	Married	-.187	.108	-.112	-1.737	.084
	non-Malay	-.182	.146	-.076	-1.250	.213
	secondary school	.092	.155	.037	.590	.556
	Diploma	-.016	.097	-.011	-.166	.868
	master's degree	.087	.094	.059	.927	.355
	self employed	-.229	.117	-.118	-1.954	.053
	Government	-.177	.084	-.138	-2.105	.037
	conventional unit trust	.263	.076	.209	3.476	.001
	prefer stocks	-.077	.078	-.062	-.981	.328
	do not hire CFP	-.125	.142	-.054	-.884	.378
	syariah literacy	.004	.005	.050	.804	.423
	propensity to plan	.010	.017	.040	.599	.550
	financial literacy	-.009	.009	-.065	-1.059	.291
	log net wealth	.875	.111	.574	7.863	.000

a Dependent Variable: log unit trust

Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.3987	5.6794	4.4147	.47223	163
Residual	-.8197	1.0769	.0000	.40893	163
Std. Predicted Value	-2.151	2.678	.000	1.000	163
Std. Residual	-1.896	2.491	.000	.946	163

a Dependent Variable: log unit trust


Scatterplot
Dependent Variable: log unit trust
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-3
-2
-1
0
1
2
3

B: THE REGRESSION RESULTS FOR THE DEMAND FOR SHARES

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	log net wealth, non-Malay, financial literacy, self employed, secondary school, age less than 30, syariah literacy, do not hire CFP, age more than 50, master's degree, government, prefer stocks, propensity to plan, conventional shares, married, female, diploma	.	Enter

a All requested variables entered.
b Dependent Variable: log shares

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.728	.529	.423	.44143	1.890

a Predictors: (Constant), log net wealth, non-Malay, financial literacy, self employed, secondary school, age less than 30, syariah literacy, do not hire CFP, age more than 50, master's degree, government, prefer stocks, propensity to plan, conventional shares, married, female, diploma
b Dependent Variable: log shares

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.439	17	.967	4.962	.000
	Residual	14.615	75	.195		
	Total	31.054	92			

a Predictors: (Constant), log net wealth, non-Malay, financial literacy, self employed, secondary school, age less than 30, syariah literacy, do not hire CFP, age more than 50, master's degree, government, prefer stocks, propensity to plan, conventional shares, married, female, diploma
b Dependent Variable: log shares

Coefficients

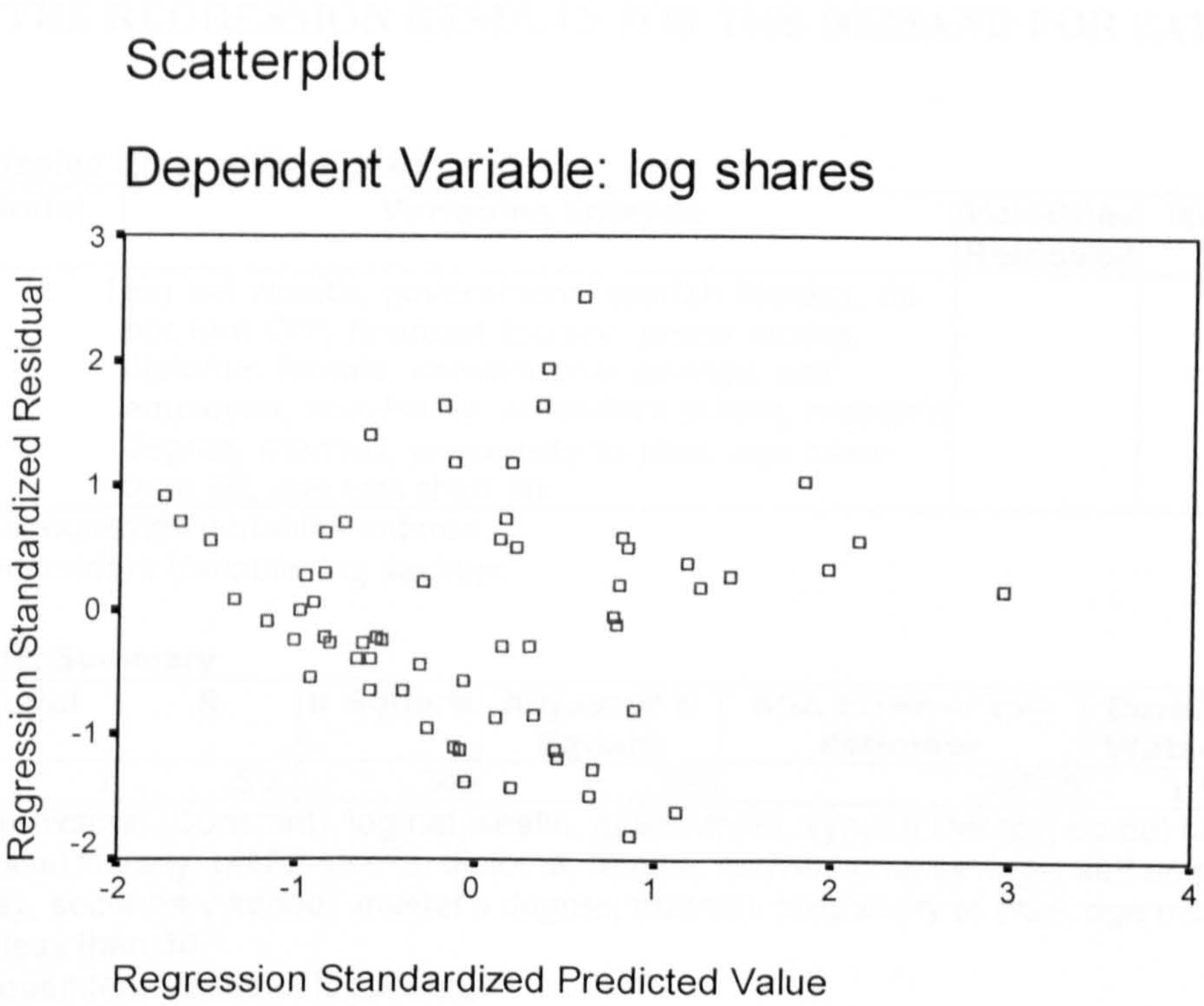
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.969	1.109		2.678	.009
	age less than 30	.093	.210	.042	.442	.660
	age more than 50	.334	.133	.249	2.506	.014
	female	-.224	.132	-.191	-1.702	.093
	married	-.179	.178	-.108	-1.008	.317
	non-Malay	-.346	.220	-.168	-1.573	.120
	secondary school	.062	.198	.032	.313	.756
	diploma	-.126	.148	-.101	-.855	.395
	master's degree	-.321	.140	-.236	-2.286	.025
	self employed	-.108	.149	-.071	-.728	.469
	government	-.290	.125	-.219	-2.326	.023
	prefer stocks	.014	.116	.012	.124	.901
	do not hire CFP	-.751	.183	-.365	-4.106	.000
	syariah literacy	-.001	.007	-.008	-.078	.938
	propensity to plan	-.034	.029	-.114	-1.165	.248
	financial literacy	.003	.015	.021	.215	.831
	conventional shares	-.263	.136	-.219	-1.935	.057
	log net wealth	.508	.157	.364	3.233	.002

a Dependent Variable: log shares

Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.4944	5.4831	4.2357	.42271	93
Residual	-.7932	1.1190	.0000	.39857	93
Std. Predicted Value	-1.754	2.951	.000	1.000	93
Std. Residual	-1.797	2.535	.000	.903	93

a Dependent Variable: log shares


Scatterplot
Dependent Variable: log shares
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-2
-1
0
1
2
3
4

C: THE REGRESSION RESULTS FOR THE DEMAND FOR SAVINGS

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	log net wealth, government, syariah literacy, do not hire CFP, financial literacy, prefer stocks, diploma, female, conventional savings, self employed, non-Malay, secondary school, master's degree, married, propensity to plan, age more than 50, age less than 30	.	Enter

a All requested variables entered.
b Dependent Variable: log savings

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.590	.348	.298	.39726	1.888

a Predictors: (Constant), log net wealth, government, syariah literacy, do not hire CFP, financial literacy, prefer stocks, diploma, female, conventional savings, self employed, non-Malay, secondary school, master's degree, married, propensity to plan, age more than 50, age less than 30
b Dependent Variable: log savings

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.460	17	1.086	6.881	.000
	Residual	34.561	219	.158		
	Total	53.020	236			

a Predictors: (Constant), log net wealth, government, syariah literacy, do not hire CFP, financial literacy, prefer stocks, diploma, female, conventional savings, self employed, non-Malay, secondary school, master's degree, married, propensity to plan, age more than 50, age less than 30
b Dependent Variable: log savings

Coefficients

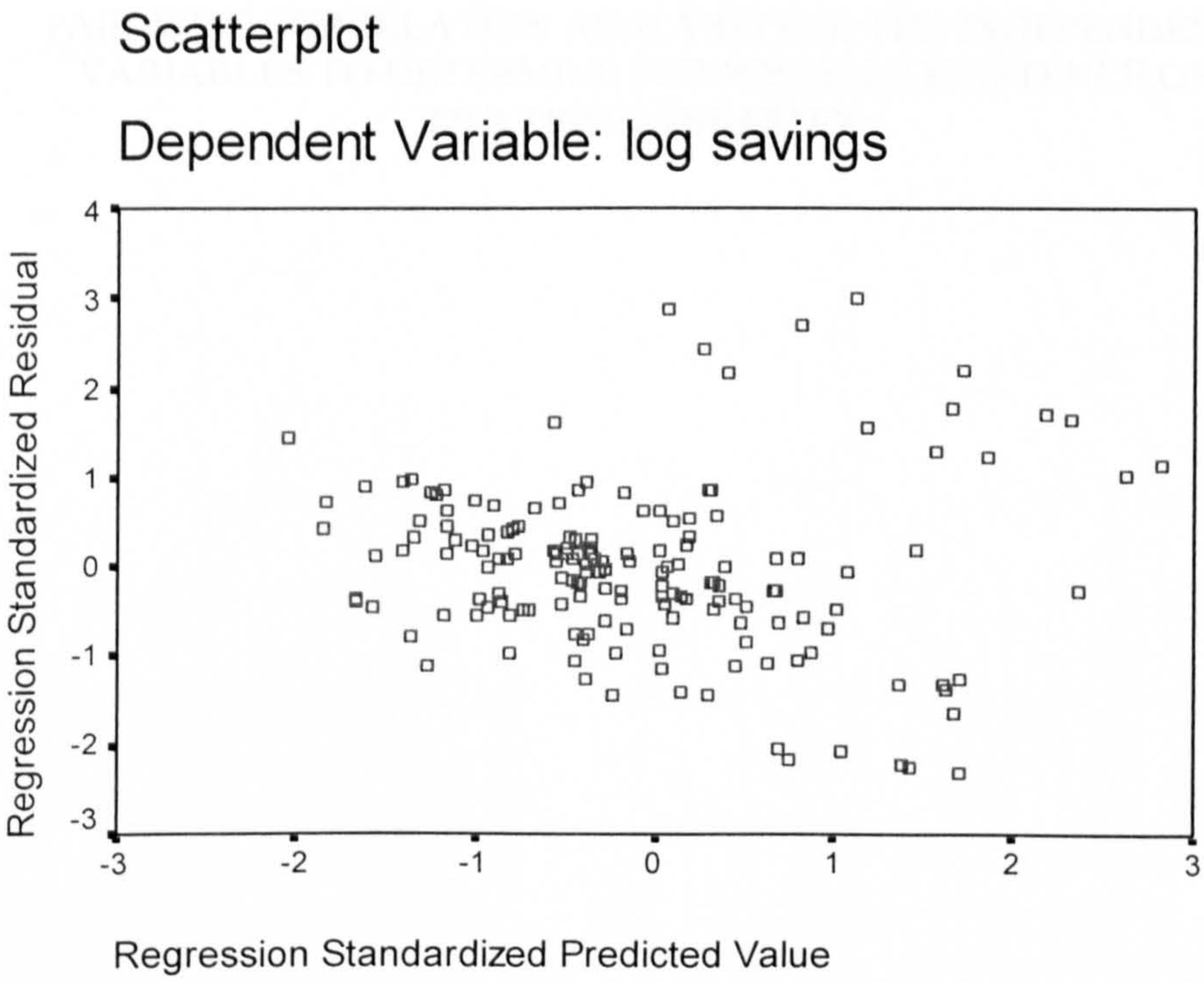
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.076	.524		2.052	.041
	age less than 30	.029	.091	.023	.319	.750
	age more than 50	.224	.079	.180	2.837	.005
	female	.124	.058	.125	2.139	.034
	married	-.107	.084	-.081	-1.268	.206
	non-Malay	-.097	.107	-.055	-.909	.364
	secondary school	.034	.102	.021	.333	.739
	diploma	-.027	.069	-.026	-.395	.693
	master's degree	-.110	.074	-.094	-1.487	.138
	self employed	.202	.091	.133	2.216	.028
	government	-.019	.060	-.019	-.314	.754
	prefer stocks	-.084	.058	-.088	-1.457	.147
	do not hire CFP	-.194	.111	-.103	-1.748	.082
	syariah literacy	.012	.003	.217	3.490	.001
	propensity to plan	-.014	.012	-.074	-1.163	.246
	financial literacy	-.003	.007	-.027	-.457	.648
	conventional savings	-.055	.056	-.058	-.985	.326
	log net wealth	.546	.085	.492	6.451	.000

a Dependent Variable: log savings

Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.5172	4.8787	4.0927	.27968	237
Residual	-.9177	1.1963	.0000	.38268	237
Std. Predicted Value	-2.058	2.810	.000	1.000	237
Std. Residual	-2.310	3.011	.000	.963	237

a Dependent Variable: log savings


Scatterplot
Dependent Variable: log savings
Regression Standardized Residual
Regression Standardized Predicted Value
4
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3

APPENDIX 6:

PAIR-WISE CORRELATION ANALYSIS FOR THE INDEPENDENT VARIABLES TO DETERMINE FOR POSSIBLE EXISTENCE OF MULTICOLLINEARITY

Correlations

Correlations

		log income	log wealth	log net wealth	syariah literacy
log income	Pearson Correlation	1	.557**	.555**	-.082
	Sig. (2-tailed)	.	.000	.000	.198
	N	254	254	252	251
log wealth	Pearson Correlation	.557**	1	.952**	-.005
	Sig. (2-tailed)	.000	.	.000	.931
	N	254	257	255	254
log net wealth	Pearson Correlation	.555**	.952**	1	-.009
	Sig. (2-tailed)	.000	.000	.	.882
	N	252	255	255	252
syariah literacy	Pearson Correlation	-.082	-.005	-.009	1
	Sig. (2-tailed)	.198	.931	.882	.
	N	251	254	252	255
propensity to plan	Pearson Correlation	.152*	.203**	.200**	.153*
	Sig. (2-tailed)	.016	.001	.001	.015
	N	252	255	253	253
financial literacy	Pearson Correlation	.005	-.013	-.029	.100
	Sig. (2-tailed)	.940	.837	.640	.113
	N	253	256	254	254
Age	Pearson Correlation	.195**	.451**	.517**	-.051
	Sig. (2-tailed)	.002	.000	.000	.417
	N	254	257	255	255
Gender	Pearson Correlation	-.177**	-.203**	-.227**	-.109
	Sig. (2-tailed)	.005	.001	.000	.082
	N	254	257	255	255
Marital Status	Pearson Correlation	.151*	.374**	.388**	-.012
	Sig. (2-tailed)	.016	.000	.000	.854
	N	254	257	255	255
Highest Academic Education	Pearson Correlation	.390**	.252**	.276**	.083
	Sig. (2-tailed)	.000	.000	.000	.186
	N	254	257	255	255
Job Sector	Pearson Correlation	-.132*	-.119	-.124*	.001
	Sig. (2-tailed)	.036	.058	.049	.992
	N	254	257	255	255
Race	Pearson Correlation	.067	-.027	-.009	-.297**
	Sig. (2-tailed)	.289	.664	.887	.000
	N	254	257	255	255
Choice of Unit Trusts Holding	Pearson Correlation	-.055	.087	.069	.149*
	Sig. (2-tailed)	.383	.163	.275	.017
	N	254	257	255	255
Choice of Saving Accounts	Pearson Correlation	-.068	.011	-.015	.126*
	Sig. (2-tailed)	.281	.866	.815	.044
	N	254	257	255	255
Choice of Shares	Pearson Correlation	.168**	.165**	.166**	.033
	Sig. (2-tailed)	.007	.008	.008	.597
	N	254	257	255	255
Bonds or Stocks Preferences	Pearson Correlation	.085	.069	.095	.175**
	Sig. (2-tailed)	.185	.280	.138	.006
	N	245	248	247	246

Correlations

		log income	log wealth	log net wealth	syariah literacy
Service of Certified Financial Planners	Pearson Correlation	-.011	-.069	-.011	-.057
	Sig. (2-tailed)	.856	.270	.866	.367
	N	254	257	255	255

Correlations

		propensity to plan	financial literacy	Age	Gender	Marital Status
log income	Pearson Correlation	.152*	.005	.195**	-.177**	.151*
	Sig. (2-tailed)	.016	.940	.002	.005	.016
	N	252	253	254	254	254
log wealth	Pearson Correlation	.203**	-.013	.451**	-.203**	.374**
	Sig. (2-tailed)	.001	.837	.000	.001	.000
	N	255	256	257	257	257
log net wealth	Pearson Correlation	.200**	-.029	.517**	-.227**	.388**
	Sig. (2-tailed)	.001	.640	.000	.000	.000
	N	253	254	255	255	255
syariah literacy	Pearson Correlation	.153*	.100	-.051	-.109	-.012
	Sig. (2-tailed)	.015	.113	.417	.082	.854
	N	253	254	255	255	255
propensity to plan	Pearson Correlation	1	.328**	.035	-.044	.088
	Sig. (2-tailed)	.	.000	.578	.480	.160
	N	256	255	256	256	256
financial literacy	Pearson Correlation	.328**	1	.000	.043	.016
	Sig. (2-tailed)	.000	.	.994	.488	.797
	N	255	257	257	257	257
Age	Pearson Correlation	.035	.000	1	-.210**	.344**
	Sig. (2-tailed)	.578	.994	.	.001	.000
	N	256	257	258	258	258
Gender	Pearson Correlation	-.044	.043	-.210**	1	-.045
	Sig. (2-tailed)	.480	.488	.001	.	.472
	N	256	257	258	258	258
Marital Status	Pearson Correlation	.088	.016	.344**	-.045	1
	Sig. (2-tailed)	.160	.797	.000	.472	.
	N	256	257	258	258	258
Highest Academic Education	Pearson Correlation	-.046	-.043	.014	-.069	-.099
	Sig. (2-tailed)	.468	.491	.817	.271	.111
	N	256	257	258	258	258
Job Sector	Pearson Correlation	.113	-.004	-.104	.145*	-.074
	Sig. (2-tailed)	.071	.948	.096	.020	.236
	N	256	257	258	258	258
Race	Pearson Correlation	.013	.015	.024	.078	-.041
	Sig. (2-tailed)	.835	.815	.697	.211	.517
	N	256	257	258	258	258
Choice of Unit Trusts Holding	Pearson Correlation	-.008	-.045	.038	.066	-.102
	Sig. (2-tailed)	.904	.477	.548	.287	.103
	N	256	257	258	258	258
Choice of Saving Accounts	Pearson Correlation	-.100	.045	-.145*	.084	-.085
	Sig. (2-tailed)	.111	.472	.019	.178	.175
	N	256	257	258	258	258
Choice of Shares	Pearson Correlation	.286**	.168**	.138*	.168**	.025
	Sig. (2-tailed)	.000	.007	.027	.007	.694
	N	256	257	258	258	258
Bonds or Stocks Preferences	Pearson Correlation	.100	-.021	-.181**	-.136*	.059
	Sig. (2-tailed)	.118	.736	.004	.032	.357
	N	247	248	249	249	249

Correlations

		propensity to plan	financial literacy	Age	Gender	Marital Status
Service of Certified Financial Planners	Pearson Correlation	-.122	-.066	.043	.080	.050
	Sig. (2-tailed)	.051	.292	.495	.203	.423
	N	256	257	258	258	258

Correlations

		Highest Academic Education	Job Sector	Race	Choice of Unit Trusts Holding	Choice of Saving Accounts
log income	Pearson Correlation	.390**	-.132*	.067	-.055	-.068
	Sig. (2-tailed)	.000	.036	.289	.383	.281
	N	254	254	254	254	254
log wealth	Pearson Correlation	.252**	-.119	-.027	.087	.011
	Sig. (2-tailed)	.000	.058	.664	.163	.866
	N	257	257	257	257	257
log net wealth	Pearson Correlation	.276**	-.124*	-.009	.069	-.015
	Sig. (2-tailed)	.000	.049	.887	.275	.815
	N	255	255	255	255	255
syariah literacy	Pearson Correlation	.083	.001	-.297**	.149*	.126*
	Sig. (2-tailed)	.186	.992	.000	.017	.044
	N	255	255	255	255	255
propensity to plan	Pearson Correlation	-.046	.113	.013	-.008	-.100
	Sig. (2-tailed)	.468	.071	.835	.904	.111
	N	256	256	256	256	256
financial literacy	Pearson Correlation	-.043	-.004	.015	-.045	.045
	Sig. (2-tailed)	.491	.948	.815	.477	.472
	N	257	257	257	257	257
Age	Pearson Correlation	.014	-.104	.024	.038	-.145*
	Sig. (2-tailed)	.817	.096	.697	.548	.019
	N	258	258	258	258	258
Gender	Pearson Correlation	-.069	.145*	.078	.066	.084
	Sig. (2-tailed)	.271	.020	.211	.287	.178
	N	258	258	258	258	258
Marital Status	Pearson Correlation	-.099	-.074	-.041	-.102	-.085
	Sig. (2-tailed)	.111	.236	.517	.103	.175
	N	258	258	258	258	258
Highest Academic Education	Pearson Correlation	1	-.062	-.031	.145*	.028
	Sig. (2-tailed)	.	.320	.620	.020	.649
	N	258	258	258	258	258
Job Sector	Pearson Correlation	-.062	1	.042	.048	.028
	Sig. (2-tailed)	.320	.	.503	.443	.650
	N	258	258	258	258	258
Race	Pearson Correlation	-.031	.042	1	-.106	-.080
	Sig. (2-tailed)	.620	.503	.	.088	.202
	N	258	258	258	258	258
Choice of Unit Trusts Holding	Pearson Correlation	.145*	.048	-.106	1	.185**
	Sig. (2-tailed)	.020	.443	.088	.	.003
	N	258	258	258	258	258
Choice of Saving Accounts	Pearson Correlation	.028	.028	-.080	.185**	1
	Sig. (2-tailed)	.649	.650	.202	.003	.
	N	258	258	258	258	258
Choice of Shares	Pearson Correlation	-.042	.098	.007	.059	.040
	Sig. (2-tailed)	.501	.116	.906	.341	.521
	N	258	258	258	258	258
Bonds or Stocks Preferences	Pearson Correlation	-.050	-.102	-.035	-.218**	-.027
	Sig. (2-tailed)	.434	.109	.580	.001	.672
	N	249	249	249	249	249

Correlations

		Highest Academic Education	Job Sector	Race	Choice of Unit Trusts Holding	Choice of Saving Accounts
Service of Certified Financial Planners	Pearson Correlation	.089	-.037	-.026	-.181**	-.144*
	Sig. (2-tailed)	.155	.559	.677	.004	.021
	N	258	258	258	258	258

Correlations

		Choice of Shares	Bonds or Stocks Preferences	Service of Certified Financial Planners
log income	Pearson Correlation	.168**	.085	-.011
	Sig. (2-tailed)	.007	.185	.856
	N	254	245	254
log wealth	Pearson Correlation	.165**	.069	-.069
	Sig. (2-tailed)	.008	.280	.270
	N	257	248	257
log net wealth	Pearson Correlation	.166**	.095	-.011
	Sig. (2-tailed)	.008	.138	.866
	N	255	247	255
syariah literacy	Pearson Correlation	.033	.175**	-.057
	Sig. (2-tailed)	.597	.006	.367
	N	*255*	*246*	*255*
propensity to plan	Pearson Correlation	.286**	.100	-.122
	Sig. (2-tailed)	.000	.118	.051
	N	256	247	256
financial literacy	Pearson Correlation	.168**	-.021	-.066
	Sig. (2-tailed)	.007	.736	.292
	N	257	248	257
Age	Pearson Correlation	.138*	-.181**	.043
	Sig. (2-tailed)	.027	.004	.495
	N	258	249	258
Gender	Pearson Correlation	.168**	-.136*	.080
	Sig. (2-tailed)	.007	.032	.203
	N	258	249	258
Marital Status	Pearson Correlation	.025	.059	.050
	Sig. (2-tailed)	.694	.357	.423
	N	258	249	258
Highest Academic Education	Pearson Correlation	-.042	-.050	.089
	Sig. (2-tailed)	.501	.434	.155
	N	258	249	258
Job Sector	Pearson Correlation	.098	-.102	-.037
	Sig. (2-tailed)	.116	.109	.559
	N	258	249	258
Race	Pearson Correlation	.007	-.035	-.026
	Sig. (2-tailed)	.906	.580	.677
	N	258	249	258
Choice of Unit Trusts Holding	Pearson Correlation	.059	-.218**	-.181**
	Sig. (2-tailed)	.341	.001	.004
	N	258	249	258
Choice of Saving Accounts	Pearson Correlation	.040	-.027	-.144*
	Sig. (2-tailed)	.521	.672	.021
	N	258	249	258
Choice of Shares	Pearson Correlation	1	.078	-.080
	Sig. (2-tailed)	.	.219	.202
	N	258	249	258
Bonds or Stocks Preferences	Pearson Correlation	.078	1	.031
	Sig. (2-tailed)	.219	.	.629
	N	249	249	249

Correlations

		Choice of Shares	Bonds or Stocks Preferences	Service of Certified Financial Planners
Service of Certified Financial Planners	Pearson Correlation	-.080	.031	1
	Sig. (2-tailed)	.202	.629	.
	N	258	249	258

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix 7: A Sample of Invitation Letter to A Financial Planner And His Responses To *The Interview Questions*

Zurina Shafii,
No 45, Jalan 3/20,
Bangi Perdana,
Bandar Baru Bangi,
Selangor.
019-2200818 (Mobile phone)
03-8926 4462 (Bangi)
03-9274 8162 (Cheras)
03-8925 7435 (fax)
zurina.shafii@durham.ac.uk (email address)
sayangshafii@hotmail.com (alternative email address)

Encik Poedjo Soesilotomo,
ATA Capital Sdn Bhd,
Suite A, 3rd Floor, Menara MAA,
Lot 6, Lorong Api-Api 1,
88000,
Kota Kinabalu,
Sabah.

25 November 2004

Sir,

Re: An invitation to participate in a research on households' portfolio allocation and their demand for financial assets

I am a PhD research student in the University of Durham, United Kingdom majoring in Islamic finance. In the course of passing the requirements of the PhD. program, I am now conducting a research with the title *"Households portfolio allocation and their demand for conventional and Islamic financial assets"*. In order to produce dependable research outcomes, I need to secure an access to high quality data, which I believe can be obtained by liaising with you as a certified financial planner.

During the course of allocating their portfolio, households are also expected to liaise with personal financial planners in order to construct the most efficient portfolio holding which suits their financial objectives. As a financial planner or person whom intensely involve in the area of personal finance, you must have great knowledge and experience which can be shared to researchers conducting study in the area. Your participation to a great extend enrich the research resources in personal financial planning industry in

Malaysia which is less resourceful in comparison to other markets such as US, UK, Italy and Japan.

The semi-structured interview sessions are planned to be conducted between the dates beginning from 7th December 2004 to 31st January 2005 to ask for your responses and opinion on the research subject briefed as above. You may agree to set up an appointment date for a face-to-face interview or fax, post, or email your responses. Leaving the modes of answering questions open will hopefully facilitate you to respond to the interview questions using method that best suites you.

Your responses will be held in confidence. No individual response will be shared with other parties. Survey results will solely be used for academic purpose and to fulfill the requirements of the PhD. program. Finally, your willingness to participate in this research project is greatly appreciated.

Best wishes and thank you again.

Sincerely,

Zurina Shafii,
PhD. Research student in Islamic Finance,
University of Durham,
United Kingdom

cc:

1) Professor Rodney Wilson,
   Professor in Economics, University of Durham
   (Supervisor for the research)
2) FPAM
   Kuala Lumpur
3) Professor Muhammad Bin Muda,
   Dean, Faculty of Economics and Muamalat,
   Islamic University College of Malaysia,
   Malaysia
4) Customer & Agent Relation Department,
   Amanah Saham Nasional Berhad,
   Kuala Lumpur.

Semi-structured interview questions with personal financial planners

For a PhD. research on

"Households' portfolio allocation and demand for financial assets according to the life cycle hypothesis"

Estimated interview time: 45 minutes to 1 hour

SECTION A. CERTIFIED FINANCIAL PLANNERS RELATED QUESTIONS

A1. Background of financial planners

1. What qualification/s do you currently hold?

√ Certified Financial Planning (CFP) qualification

☐ SC qualification as an IAL/IRL and managing client's fund

√ Certified Insurance qualification *RFP and FChFP*

√ Others, please state __*Islamic Financial Planning Certificate. IFPC*

2. How many years have you been operated as a certified personal financial planner?

☐ Less than one year

√ 1-2 years

☐ 3-5 years

☐ 5 years and more

3. What is your age range?

☐ 25-30 years

☐ 31-35

√ 36-40

☐ 41-50

☐ 50-above

4. You are

√ Male

☐ Female

A2. Background of practice of financial planners, i.e. practice demographics

5. Do you offer partial or comprehensive financial planning?

☐ Partial

√ Comprehensive

If you are doing partial financial planning, please go to question 6

If you are doing comprehensive financial planning, please go to question 7

6. What types of partial/slice financial planning activities you involve in providing services? Please tick at the appropriate boxes

Types of activities	Involvement (Yes/No)
i. credit and borrowing financial planning	
ii. investment planning	

7. What types of comprehensive financial planning you offer? Please tick at the appropriate boxes

Types of activities	Involvement (Yes/No)
i. Basic financial planning *Yes*	
ii. Insurance and risk management *Yes*	
iii. Investment *Yes, Through Associates*	
iv. Tax management *Yes, Through Associates*	
v. Retirement planning *Yes*	
vi. Estate planning *Yes*	

8. Do you offer other services apart from financial planning advice?

Yes, Through Associates Yes

☐ No

If yes, please state yes or no in the following boxes on other types of services.

Types of services	Involvement (Yes/No)
i. accounting *Yes, Through Associates*	
ii. financial services *Yes, ie Will writing, Trust creation, mortgage restructuring and wasiat and hibah in near future*	

9. What are the types of major clients which you provide with the advice of personal financial planning?

☐ Institutions

√ Individuals

10. How many clients you are currently managing at this point of time?

☐ Less than 10

√ 10-20

☐ 21-40

☐ 41-50

☐ More than 50

11. What is the average length of relationship do you have with your individual clients?

☐ 1 year

☐ 2 years

☐ 3 years

☐ 5 years

√ More than 5 years *It should be as long as possible since FP is a process that requires monitoring and review*

A3. Financial aspects of financial planner's practice i.e. practice economics

12. What is the primary method of compensation applied to your financial planning services?

☐ Fees

√ Commission

13. How much is the average hourly rate applies to your advice of financial planning? *Not related to Q.12*

☐ Less than RM100.00

☐ RM 100.00-150.00

☐ RM 151- 200.00

☐ RM 201.00 -250.00

☐ More than RM 250.00

14. Are you involved in managing clients' assets?

√ Yes *Indirectly, Obtain advice from Fund managers and Investment advisors*

☐ No

15. What is your opinion as a CFP regarding assets management of clients?

☐ It is *NOT a particular* part of financial planning

☐ It is part of financial services provided by you to your clients

A4. Islamic financial planning and financial planners

16. Do you provide personal financial planning which takes into account Islamic *Syariah* requirements?

√ Yes

☐ No

17. What is the percentage of your clients engaged in Islamic compliant financial planning?

☐ Less than 10%

☐ 10%-30%

√ 31%-50%

☐ More than 50%

18. How do you rate yourself on the knowledge of Islamic financial concepts and products and services?

☐ Not really familiar

☐ Possess understanding on the basics of Islamic financial concepts

√ Well versed on Islamic financial concepts but do not offer much advice due to the lack of demand from clients

☐ Well versed on Islamic financial concepts as well as engaged in many portfolios of Islamic financial planning

19. In your opinion, what is the most effective ways to promote Islamic compliant financial planning? *All*

√ Marketing through mass media

√ Direct advice to clients

√ Others, please state in the blank space below

The regulators should introduce the Islamic financial Planning Course to CFPs or RFPs making it also a prerequisite for anyone offering financial planning advice to Muslim clients. Without Islamic FP knowledge, a conventional FP could in fact give wrong or incomplete advice to his Muslim clients.

SECTION B. CLIENTS' RELATED QUESTIONS

B1. Client's demographics and economics

20. Can you please give percentages to the range of age of your clients to the total of your clients' base?

Client's age	Percentage (%)

i. Less than 26	
ii. 26-30	
iii. 31-40	*80*
iv. 41-50	*10*
v. 50 years and above	*10*

21. What the gender of your average client?

☐ Male *70%*

☐ Female *30%*

22. What is the percentage of race of your total clients?

Race	Percentage (%)
ii. Chinese	*30%*
iii. Malay	*50%*
iv. Indian	*0*
v. Others	*20%*

23. Can you distribute your total clients into the following range of annual income?

Range of annual income	Percentages (%)
i. Less than RM 50,000	*50*
ii. RM 51,000-100,000	*30*
i.RM 100,001-300,000	*20*
iv. more than RM 300,000	*5*

24. What is the net worth of a typical client of yours?

☐ Less than 20,000

☐ 20,001- 50,000

☐ 50,001-100,000

√ 100,000-200,000

☐ More than 200,000

25. Can you suggest the percentage of savings and investments made by average client out of their income looking at a monthly basis?

☐ Less than 10%

√ 10%-20%

☐ 21%-30%

☐ More than 30%

26. What is your opinion on the level of personal financial planning awareness among Malaysian households? You may write your opinion in the space below.

The awareness is still low as the FP industry is also in its infancy stage. Given time, I foresee that the average Malaysian would want to meet a FP to discuss issues related to FP. However, I still believe that the Insurance, Unit Trust and Will Writing Professional would be the ones making inroads in promoting FP as there are more sales/marketing oriented. The FPs from the accountants, remisiers fraternity etc would be slower in promoting FP to the masses as they are known to be 'order takers' unless they too become more aggressive in marketing their know-how.

B2. Client's attitude about Syariah Compliancy

27. If you were to rate the knowledge of your clients which involves in Islamic financial planning on Syariah requirements, which categories can they best fit into? You may also add your opinion in the spaces below

☐ Need much explaining on the concepts and basics

√ Need only assistance in the allocation process, for instance, where and how much to invest

☐ Other comments and opinion as below

However, many are still not aware on major areas of Estate planning ie Faraid, Hibah as well as Wasiat and Trusts as instruments available to them to do proper estate planning

28. Do you reckon that clients who actively involves Islamic financial planning placing great importance on Syariah compliancy issue before investing? Or rather they are more interested with the economic aspects of the products.

√ Syariah compliancy comes first

☐ Attractive returns is more important

√ Other comments and opinion as below

For clients who are serious and particular about Syariah compliancy issues, they would insist on syariah approved investments. The

economic aspects come a distant second. In some cases, Islamic investments sometimes outperform conventional ones.

29. What are other issues you would like to highlight on the subject of personal financial planning and Islamic personal financial planning? Please write your opinion in the spaces below.

Please refer to Q.19. In addition, Malaysia having a predominantly Islamic population and endeavoring to be the regional hub for Islamic Finance should seriously introduce the Islamic Financial Planning Course to the up and coming Financial Planners who plan to offer FP advice to the Muslim community.

B3. Client's financial planning expertise

During the process of establishing personal financial plans with your clients, you must have assessed the level of financial planning knowledge of your clients. In general, how did you find their level of financial planning that they have? Can you possibly state a series of scores on the knowledge of your clients on major aspects of financial planning by ticking in the appropriate boxes below?

Types of knowledge	poor	medium	Excellent
i. Establishing and evaluating financial goals		√	
ii. Basic characteristics of financial products	√		
iii. Money management		√	

iv. Investments	√		
v. Retirement planning		√	
v. Taxes		√	
vi. Insurance	√		
vii. Estate planning	√		

End of interview questions. Thank you for your participation.